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THE UNIVERSITY OF ALBERTA

MAJOR LEAGUE HOCKEY: AN INDUSTRY STUDY

by

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
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THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

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Major League Hockey: An Industry Study

submitted by Eldon James Fillingham

in partial fulfilment of the requirements for the degree of MASTER of BUSINESS ADMINISTRATION

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ABSTRACT

The purpose of this study was to delineate the critical relationships with respect to the attainment of success within the major league hockey industry, where success is defined as profit maximization.

With the exception of firms situated in a few large Canadian cities (Montreal, Toronto and Vancouver) and possibly New York City in the U.S., major league hockey firms must possess a team of championship caliber before they begin to approach profit maximization.

Several firms within the industry are in untenable positions irregardless of their teams' competitiveness because they are located in inadequate markets, while the long run viability of several other firms is being threatened by their lack of adequate facilities.

Where a firm is not constrained by its lack of an adequate market or facility the crucial factor which determines whether or not it assembles a championship caliber hockey team is the quality of its management personnel. The overall quality of managerial performance within the industry as a whole was found to be poor.

Three possible long run solutions to the industry's problems were put forward. First, the teams with inadequate markets or severe facility problems should not be propped up by the healthy firms but rather be allowed to cease operations. Second, the industry should attempt to improve

the supply of player inputs by providing more assistance to minor hockey programs particularly in the province of Quebec and the United States. Third, the industry must make a concerted effort to reduce the disparity in managerial ability which exists between the best managers and their less astute counterparts by recruiting more qualified people.

ACKNOWLEDGEMENTS

I would like to take this opportunity to express my heartfelt thanks to several people who made significant contributions towards the production of this thesis. I depended heavily on my good friend, Russ Albert, for his sound advice with respect to the design and content of this manuscript as well as for encouragement whenever I became frustrated or despondent, which was often. Without Dave Thompson's assistance it would have been impossible for me to utilize the computer in producing the manuscript and thereby avoid countless hours of toil and frustration. In addition, I would also like to thank my supervisor, Dr. M.J. Dunn for his guidance as well as the other two members of my committee, Dr. Clare Drake and Dr. Terry Daniel for their co-operation. Finally, I would like to express my gratitude to my parents for their support and understanding.

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TABLE OF ABBREVIATIONS

C.A.H.A.- Canadian Amateur Hockey Association, the governing body of amateur hockey in Canada.

C.S.S.- Central Scouting Service, the N.H.L.'s amateur scouting combine.

N.H.L.- National Hockey League, one of the major league hockey industry's two cartels.

N.H.L.P.A.- National Hockey League Players Association, the collective bargaining organization representing the N.H.L. players.

O.H.A.- Ontario Hockey Association, one of the three Tier I Junior A hockey leagues in Canada.

S.P.C.- Standard Player Contract, the contract between player and hockey firm denoting each party's obligations to the other.

W.C.H.L.- Western Canada Hockey League, one of the three Tier I Junior A hockey leagues in Canada.

W.H.A.- World Hockey Association, one of the major league hockey industry's two cartels.

CHAPTER I

A. Introduction

The game of hockey is one of the great unifying elements throughout the Dominion of Canada. It has been described as "the national religion" and the country's "greatest indigenous art form". The sports sections of Canadian newspapers from November to May are dominated by articles on amateur and professional hockey while over 4.5 million of the 22 million Canadian people regularly tune in the Saturday night television broadcasts of Hockey Night in Canada.[1] In fact the largest audience in the history of Canadian television, nearly ten million people, watched the Russia Canada game telecast on September 11 during the 1976 Canada Cup Tournament.[2]

The most skillful practitioners of the game in this land of hockey worshipers play for pay in the major league hockey industry and are more readily recognizable by a larger percentage of the population than many of our country's leading politicians or artists.

---

[1] "T.V. Audiences Near 5 Million", The Hockey News, Nov. 1, 1974, page 37.
[2] Ken McKenzie,"Passing the Puck", The Hockey News, Oct. 8, 1976, page 4.

Despite the amount of attention allowed the major league hockey industry in the newspaper, on radio and television and in bookstores, little has been written about the industry as a business. The vast majority of articles, television programs, and books focus on major league hockey as sport and deal primarily with the personalities, philosophies and accomplishments of the games' players and coaches. A few articles and books have attempted to analyze and explain professional sport using economic theory. However, these too have fallen short of a thorough analysis.

The purpose of this thesis is to analyze the industry not as a fan, but as a business manager delineating the critical relationships and constraints which ultimately determine whether or not a firm remains viable. Once these constraints have been isolated they will be explored with respect to the attainment of success within the industry where success is defined as long run profit maximization. An optimal method of achieving success based on the aforementioned analysis will then be postulated.

Perhaps at no time in its past has the industry been in more need of thorough business analysis. Nine of the eighteen firms in one of the industry's two cartels the, National Hockey League, expect to lose between $500,000 to $2,000,000 during the current fiscal year while no firm in the other cartel, the World Hockey Association has ever recorded a net profit.[3]

Data was collected from essentially three sources. First, secondary data from newspapers, magazines, books, and radio and television interviews provided a wealth of information due to the industry's high media visibility. Two publications, the N.H.L. Guide, a fact book produced annually by the National Hockey League and The Hockey News, the industry's weekly trade magazine, were particularly invaluable. Second, a questionaire requesting general information was mailed to all thirty firms within the industry and seventeen responses were received. Finally, when the opportunity presented itself the author interviewed various major league hockey managers and scouts.

Three significant problems emerged with respect to the collection of data for the project. First, owners and managers within the industry are extremely reluctant to disclose information of a financial nature. Consequently, the author was unable to acquire access to audited financial statements and experienced difficulty in acquiring attendance data. Second, due partially to a shortage of research funds and partially to the City of Edmonton's relative isolation from the mainstream of the industry which is focused in the Great Lakes and Eastern Seaboard region of the North American continent, the author was unable to develop extensive contacts with managers and owners within the industry. Third, the aforementioned problems required that reliance be placed largely on secondary data for financial estimates and made it virtually impossible to conclusively validate these estimates. However, the secondary sources tended to reinforce one another with respect to the approximate size of the various clubs' total operating budgets. Moreover, the approximate size of the individual items were corroborated from conversation with individuals working within the industry.

---

[3] Jamie Wayne, "Next Step in N.H.L.: Contraction", Financial Post, Jan. 22, 1977, pages 1 and 2.

The purpose of Chapter II which provides a background of the economic structure, theory, and history of the major league hockey industry and also presents the approximate size of items on a typical major league hockey firm's budget is to acquaint the reader with this rather complex industry and with some of the budgetary constraints placed on firms within it.

Chapter III begins the analysis of the various market and product constraints placed upon the industry's managers. The first portion of this chapter is devoted to a discussion of the most important characteristics of major league hockey markets with particular reference to the relationship between product differentiation, market characteristics and consumer response to the product. Included in this discussion is a description of the type of product required before profit maximization is achieved.

The second portion of Chapter III is concerned with assessing the various techniques and strategies open to managers in their efforts to acquire sufficient raw resources to assemble a product. In essence the player market is analyzed with respect to the possible sources of player inputs. Special attention is given to player inputs entering the professional ranks from the amateur feeder system. Each feeder system is evaluated with regards to the quantity and quality of its outputs. In addition the length of transition period required before amateur players attain professional success as well as the predictability of professional success from amateur performance were also examined.

Chapter IV draws on the analysis of the preceding chapters to delineate the factors most critical to attainment of profit maximization and suggests a possible managerial strategy for achievement of this goal.

An assessment of the overall state of the art of management within the industry is presented in the middle portion cf Chapter IV.

Finally alternative solutions to this industry's many problems are discussed.

CHAPTER II

I - League Organization

The major league hockey industry is organized into two cartels, the National Hockey League (N.H.L.) and the World Hockey Association (W.H.A.), consisting of eighteen and twelve member firms respectively. Fifteen of the N.H.L. clubs and eight of the W.H.A. clubs are located in American cities while the remaining firms are situated in Canada. The factor that differentiates professional sports leagues from other industries with cartel structures is that their membership is mutually dependant with respect to production of their product, the game.[1] Since a hockey game cannot be produced by an individual club, cooperation and coordination between teams necessitates the establishment of a formal organization.

A. Functions of the League

The five functions that this organization, the league, performs for its membership are discussed on the next few pages.

---

[1] J.C.H. Jones, "The Economics of the National Hockey League", Canadian Journal of Economics, Vol. 2 (Feb., 1969), page 2.

1. The Coordination and Standardization of the Product

The league engages in three different types of activity in performing this function. First, league officers draw up the schedule which in the case of the N.H.L. involves 720 regular season games as well as exhibition and playoff matches.[2] Due to the sheer number of contests and the extensive travel involved (N.H.L. clubs travel an average of 47,000 miles during the regular season) it is often difficult to avoid conflicts.

Second, the leagues regularly make adjustments in the rule structure, both to reduce interference from outside sources and to increase the entertainment value of their product. Hockey is an extremely rough, physical contact sport, being the only major North American team sport which tolerates fighting. Many people feel that the industry has not taken forceful enough action in controlling the sport's more violent aspects and should be more closely supervised by the judiciary. Consequently, the owners have attempted to allay some of this concern by imposing more stringent controls on the players. In addition, rule changes are also implemented to increase the fan's pleasure by attempting to reduce play stoppages and speed up the game.

Finally each professional league attempts to scout, recruit and train the best officials possible as officiating can greatly add to or detract from the quality of a match.

---

[2] 1976-77 N.H.L. Guide, page 244.

In addition to its thirty six game officials, the N.H.L. also employs four supervisors who grade and coach the referees and linesmen as well as recruit new officials.[3]

2. The Protection of the Integrity of the Sport

This function involves protecting the sport's public image from besmirchment by any league officials or players. The league president is endowed with sweeping powers which enable him to impose severe negative sanctions on any league employee or player whose actions in any way threaten the integrity of the sport. The latter classification includes everything from excessively violent play, to lifestyle, but the harshest penalties are reserved for those individuals who may be connected in any way with gamblers.[4]

3. Competitive Restrictions on Firms

The major league hockey industry virtually eliminates economic competition between teams within the same league by stringently restricting competition for both markets and player inputs. The former is accomplished by granting exclusive marketing rights to a defined spatial area to each club while the utilization of non market mechanisms to distribute the negotiation rights to players prevents the latter.

---

[3] 1976-77 N.H.L. Guide, page 62.
[4] The clauses in the Standard Player Contract (S.P.C.) which provide this power are section 10.2.1 and Section 13 in the W.H.A. S.P.C. and Section 4 in the N.H.L. S.P.C..

(i) Exclusive Marketing Rights

Every major league hockey firm has the exclusive right to market its product within a defined spatial area that normally encompasses the city that the team is located in plus a radius of fifty miles outside the corporate limits.[5] Monopolistic territorial rights provide a major league hockey firm with exclusive marketing rights to its three primary sources of revenue: in-person attendance, the sale of broadcast rights, and auxiliary revenue garnered through the sale of concessions, souvenirs, programs and parking.

(a) Admission Revenue

Admission revenue is generated from exhibition, regular season and playoff games. Four to fourteen exhibition contests are usually played while each major league club plays an eighty game regular season schedule consisting of forty home and forty away games with the home team retaining all gate receipts.[6] In addition, twelve of the eighteen N.H.L. teams and eight of the twelve W.H.A. clubs qualify for lucrative post seasonal play that greatly adds to a club's revenue as these contests contribute substantially to marginal revenue without greatly increasing marginal cost. As is the case during the regular season the home team receives all of the gate receipts.

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[5] J.C.H. Jones, "The Economics of the N.H.L.", Canadian Journal of Economics, Vol. 2 (Feb. 1969), pages 4 and 5.
[6] Roger G. Noll, "The Team Sports Industry: An Introduction.", Government and the Sports Business, pg. 28.

(b) Broadcast Revenue

Each hockey firm has the exclusive right to broadcast any home game that is not part of the league's national broadcasting package or conversely prevent any game that is not part of the package from being broadcast in the area. Thus every club has control over local broadcasting as no team competes with more than one other from its league. With the exception of Vancouver, Montreal, and Toronto of the N.H.L. who share a lucrative national broadcasting contract, clubs derive more revenue from local than national broadcasting rights.[7]

(c) Auxiliary Revenues

Auxilary revenues include items such as the sale of food, beverages, souvenirs, programs and parking space to those in attendance at home games. Most lease agreements call for these revenues to be divided between the club and the arena's ownership; consequently, the magnitude of the revenue accruing to a hockey firm from this source varies from one hundred per cent in instances where the club owns its own facility to only a portion of the program and souveneir revenue in the case of some publicly owned facilities.

(ii) The Player Reservation System

---

[7] Ira Horowitz, "Sports Broadcasting", Government and the Sports Business, page 289.

The player reservation system is a complicated structure of rules, regulations, procedures and business practices utilized by major league hockey firms to allocate the negotiation rights to playing talent without resorting to competitive bidding between clubs within the same league. The objective of the player reservation system is to ensure that the negotiation rights to every individual who is eligible and capable of playing major league hockey are owned by one and only one team within a given league. The underlying purposes behind the establishment of this system are two fold. First, the fact that a given player's potential employers are reduced to two teams, one within either league, greatly reduces his bargaining power vis a vis his potential employer which in turn allows the latter to keep salaries below their free market value. Second, the player reservation system provides the potential to reduce the disparity in playing talent between the weakest and strongest teams in the league as the former are given preferential treatment with respect to many of the non market mechanisms that constitute the player reservation system.[8]

The numerous devices used to allocate, redistribute and maintain the negotiation rights to playing talent can be classified into three groups; mechanisms designed to distribute the negotiation rights to eligible individuals entering professional hockey from the amateur feeder systems, devices used to redistribute the contracts of marginal players,and restraints on players' mobility after their contractural obligations have expired.

---

[8] Roger G. Noll, "The Team Sports Industry: An Introduction.", Government and the Sports Business, pg. 7.

(a) Devices Used to Distribute the Negotiation Rights to Eligible Amateur Players

The two most common devices utilized to allocate the negotiation rights to amateur players eligible to compete in professional hockey are the annual amateur draft of over age players and the negotiation list. Of the two the former is by far the most important both quantitatively and qualitatively as the vast majority of the players entering major league hockey are drafted.

The Universal Amateur Draft

The draft mechanism is utilized to allocate the negotiation rights to the cohort of all amateur hockey players who turn twenty years of age during the calendar year in which the draft is held. Each team makes a selection in turn, the order of selection being determined on an inverse order of finish basis, with the last place club in the most recently completed season having the first choice and so on. The draft continues until all clubs are satisfied that the best prospects available have been taken. Selection positions are freely negotiable and may be exchanged for players, cash, other draft choices or some combination thereof. Since the N.H.L. and W.H.A. hold separate drafts from the same pool of amateur talent one team in either league will usually hold the negotiation rights to a particular player resulting in competitive bidding for his services.

Although inter league competition for amateur talent raises players salaries considerably above the level they would achieve in a monopolistic situation they are probably still below their free market position because the number of bidders is still restricted to two firms.

The Negotiation List

The other less important allocative device, the negotiation list, is utilized in instances where an individual has been either overlooked in the draft or is too old to be drafted, as is the case with some European recruits, and is not the property of another team in the same league. Such a player must be placed on a club's negotiation list before it may sign him to a professional contract. A player need not have fulfilled his contractural obligation to a team in another league before he can be placed on the list but he must have completed his term before he can be signed to a current playing contract.[9] When the W.H.A. was formed the member teams divided the negotiation rights to most of the individuals then playing professional hockey by holding a draft and placing these athlete's names on negotiation lists. When the hockey player completes his contractural obligations to his present team he or his agent contacts the club in the other league that has his name on their negotiation list and inquires as to whether or not they wish to bid for his services against his present employer.

---

[9] Sheldon Gallner, Pro Sports: The Contract Game, page 125.

(b) Redistributive Devices - Marginal Players

In addition to its active twenty man major league roster every major league hockey firm also employs five to twenty non roster veteran players who perform for a minor league professional club. These minor league operations perform several functions for the major league club.

First, they allow younger athletes who have not yet attained their full potential as hockey players to engage in a learning process and eventually hone their abilities up to a major league standard without hurting the major league club's record with their novice errors. Second, the non roster veterans provide depth for the parent firm when injury incapacitates an athlete on the active roster. Third, the presence of talented youngsters on the farm club tends to motivate veteran performers on the active roster towards better performances as they realize that they can easily be replaced. Fourth, talented amateurs who are unable to crack a contending club's active major league lineup are often placed in cold storage on a minor league team until they can either be bartered for other players or an opening appears on the major league roster.[10]

Two devices employed by the major league hockey industry, the intra-league draft and the waiver rule, attempt to redistribute the playing rights to marginal players on either the major or minor league rosters without resorting to competitive bidding for their services. The purpose behind this redistribution is two fold; to prevent intra-league economic competition for talent and to reduce the talent disparity between the league's weak and dominant teams.

The Intra League Draft

Teams are only allowed to protect a limited number of active and non roster veteran players during the intra league draft. All unprotected players are eligible for selection by the other firms in the league on an inverse order of finish basis but a limit of two players is usually set as the maximum number any one team can lose. For example the teams may only be allowed to protect eighteen players excluding first year professionals. Therefore the last place club has its choice of the nineteenth best player under contract to any club in the league. When a club acquires an athlete it must add him to its protected list and delete the name of another individual from the list making the latter eligible for selection in the draft. In addition, the drafting team must pay a flat rate payment to the organization from which it acquired the player. Generally the number of quality individuals available in the intra league draft is limited, as only the very best organizations possess a surplus of quality personnel. Moreover, many of these clubs attempt to trade any excess talent they might possess for other players or draft choices rather than leave it subject to the draft.[11]

---

[10] Personal Interview, Mr. Ronald Caron, Chief Scout, Montreal Canadiens, Nov. 18, 1975.

The Waiver Rule

The waiver rule stipulates that a player is not free to negotiate with any other team should his current employer yield its exclusive right to his services, but is limited to negotiation with the first firm that picks him up on waivers. When a player is released he is placed on waivers and any other club in the league can acquire his negotiation rights by paying the waiver price. However, all clubs do not have an equal opportunity to acquire individuals on waivers because the order of selection is determined on an inverse order of the previous years finish basis. Consequently, the worst teams have the best opportunity to purchase waived players. Nevertheless, few quality hockey players become available through waivers as most of the individuals waived are older, possess inflated contracts or are discipline problems.[12]

---

[11] Charlie Halpin, "N.H.L. Striving to Head Off Player Signing War with W.H.A.", The Hockey News, July 1973, page 3.

(c) Restraints on Player Mobility

Major league hockey employs several restraining devices designed to limit player's freedom of movement after they have completed their contractural obligations. The number and strength of these restraints varies considerably between the two cartels, with the N.H.L. being by far the more restrictive.

N.H.L. Restrictions

The N.H.L. employs two major restrictive devices, the option clause and the compensation rule. These devices allow the firms to maintain player salaries at a level below their free market value by discouraging intra league competitive bidding for playing talent, thereby reducing the players' bargaining power.

The Option Clause

The dual option clause employed by the N.H.L. in its Standard Player Contract (S.P.C.) states that a player is bound to his club for the length of his contract plus an option year. At the end of the specified length of the contract either the club or the player can renew the contract for an additional year on the same terms. If the player wishes to "play out" his option he must notify the club prior to a certain date or his contract will automatically be renewed for another contract year plus an additional option year.[13]

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[12] Norm MacLean, "N.H.L. Waiver Rule: Salvation Of Hockey Vets." , The Hockey News, Nov. 5, 1976, page 3.

The option clause restricts a player's movement because he is bound to his club for an additional year beyond the stated term of his contract. Should the athlete be injured and unable to play again while he is in the process of playing out his option the club would be free to terminate his contract on completion of the option year.

The Compensation Rule

The option clause itself would not be so restrictive if it were not accompanied by the compensation rule which states that any club signing an individual who has played out his option must compensate the player's former employer with either players, draft choices or cash.[14] If the two firms cannot come to a mutually acceptable agreement with respect to the amount of compensation the matter is subject to fixed point arbitration. Both teams submit proposals to the arbitrator specifying the amount of compensation requested or offered as the case may be. The arbitrator then accepts the proposal which he judges to be the fairest, thereby encouraging clubs to be reasonable in their demands.

The combined effect of the compensation rule and the option clause is to greatly reduce the intra league contractural mobility of N.H.L. players. The player's motivation in playing out his option is to better himself whether it be in terms of monetary rewards or psychic satisfaction. However, the presence of the latter two rules significantly increase the uncertainty associated with attaining free agent status as the athlete is gambling that he will perform well, avoid injury, and be able to locate a firm willing to compensate him for the high degree of risk he is undergoing despite the fact that it will have to pay a substantial indemnity to his former employer. Thus this high degree of uncertainty that has been created through the development of the option clause and compensation rule tends to dissuade N.H.L. players from becoming free agents.[15]

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[13] Section 17 N.H.L. S.P.C..

[14] By Law Section 9A N.H.L. S.P.C..

W.H.A. Restrictions

The Secondary Draft

The unique player reservation mechanism used by the W.H.A. to deal with free agents, the secondary draft, is perhaps the most liberal device of its kind in professional sport. The W.H.A. Standard Player Contract contains no option clause. If the athlete and his current team are unable to reach an amicable contractural agreement they take the matter before an arbitration board. Should either party disagree with the arbitration board's award the player enters the "secondary draft" pool from which other teams in the league choose players, the order of selection being determined on an inverse order of finish basis. If the athlete is unable to reach an agreement with the first team that selects him, he continutes to re-enter the pool until a mutually compatible club selects him.[16] In theory, a W.H.A. player is free to play with any other club in the league after he completes his contractural obligations to his current employer. However, in practice a group boycott of free agents may be in effect amongst the W.H.A. owners as only one player, in the four year history of the league has moved from one club to another via the secondary draft.

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[15] Sheldon Gallner, Pro Sports: The Contract Game, pages 126-128.

4. The Formation of a Common Front Against Interest Groups

In recent years the major league hockey industry has become increasingly embroiled in conflicts with assorted interest groups, the three most common of which have been the government antitrust investigators, the judiciary, and the opposing cartels themselves.

Government antitrust investigators and civil libertarians have been giving professional sport increasingly closer scrutiny in recent years with respect to the restrictions inherent in the player reservation system and the granting of exclusive marketing rights to geographical areas.[17]

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[16] W.H.A. S.P.C. Section 16.

[17] Edmonton Journal, Nov. 26, 1975, page 65. "N.H.L. Investigated by U.S."

Meanwhile the judiciary, the media, and the public are voicing grave concern over the degree of unnecessary violence within the game. These groups believe that the industry has been lax in policing itself in these areas and may have to be encouraged to rectify the situation through the courts.

While the cartels' relationships with their respective players' associations have been relatively tranquil in recent years both associations are ever vigilant and ready to protect their rights by litigation if necessary. Similarly, although their relationship has noticably improved in the recent past, both the N.H.L. and W.H.A. keep a wary eye posted on each other for any possible breach of their respective rights.

The member firms of the major league hockey cartels are able to better defend themselves against attacks from the aforementioned interest groups because of the unity that results from the league structure. By presenting a unified front against their opposition they can make a more concerted defence of those unique institutions within the industry (i.e. monopolistic territorial rights and the player reservation system) that they deem most crucial to its viability.

5. Provision of Financial Assistance to Ailing Franchises

When one member firm of a league runs into financial difficulty it is often subsidized by its league partners until such time that it either becomes viable or ceases operations. The provision of financial assistance is often the only thing that allows a franchise with a poor product or market to remain viable.

There are essentially three reasons why other major league firms support their less successful partners. First, the strength of the mutual dependency between clubs forces the more successful firms to subsidize the less viable at least in the short run; if only to avoid the scheduling problems that result when a team ceases operations. Second, professional sport derives much of its appeal from the high degree of product differentiation that has been built up around it. When a firm within a league ceases operations in midseason the whole league loses some of its legitimacy. Consequently, the rest of the league will often prop up an ailing partner in order to protect its degree of product differentiation. Finally, the other clubs often have a direct financial interest in ensuring another's viability as is the case when an expansion team that is still making franchise payments to the league encounters financial difficulty.[18]

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[18] Red Fisher, "N.H.L. Settles For Less Than $6 Million Fees", The Montreal Star, March 1, 1977, page B-1.

II- Determinants of Product Quality

A number of researchers, notably Jones, Demmert and Noll have analyzed the most important determinants of an athletic contest's quality. The following discussion is a synthesis of their findings.

Major league hockey derives much of its appeal from the high degree of differentiation between its primary inputs, the players, and the inputs of all other types of hockey. Major league professional hockey players are regarded as being qualitatively far superior to any other group of hockey players either amateur or professional.[19] Thus the association of an extremely high absolute skill level with a match between two major league clubs adds greatly to the utility derived from the contest by the public.

Besides a high absolute skill level Demmert observed that the consumers of athletic contests also derive utility from the closeness of the match, that is the uncertainty of its outcome.[20] Therefore the closer the match the greater the attendance ceteris paribus. However, the contestants may have to have attained some minimal skill level before this relationship holds as there appears to be little demand for contests between very weak major league clubs.

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[19] J.C.H. Jones, "The Economics of the N.H.L.", _Canadian Journal of Economics_, Vol. 2 (Feb., 1969), page 3.
[20] Henry G. Demmert, _The Economics of Professional Team Sports_, page 10.

Paradoxically the quality of a hockey match as measured by consumer demand also appears to increase when its outcome is highly predictable in a positive direction. Hockey attendance remains at one hundred per cent of capacity even when the probability of a home team victory remains extremely high. For example over the last two seasons the Philadelphia Flyers of the N.H.L. have only lost ten out of their eighty regular season home games yet their attendance has remained at one hundred per cent of capacity, 17,077 spectators per contest.[21]

Demmert notes that this relationship between winning and attendance probably occurs because fans derive added utility from the vicarious pleasure of associating with a winner.[22] The observation is partially validated in that there appears to be an inverse relationship between what can be termed negative uncertainty (a low probability of winning) and attendance. Teams with less than outstanding records operate at substantially less than one hundred per cent of capacity. With the exception of the two Canadian based N.H.L. clubs, Vancouver and Toronto, no N.H.L. club in recent years has attained capacity attendances without being legitimized as a championship contender. Thus the lower the probability that the home team will win the lower will be its attendance, as a general rule.

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[21] Alan Richman, "No Ducats in Philly", The Montreal Star, October 8, 1975, page D-2.
[22] Henry C. Demmert, The Economics of Professional Team Sports, pages 10-11.

It is apparent that consumers also derive utility from major league hockey games that is separate and distinct from either the absolute skill level of the contestants or the certainty of victory. Due to the sheer number of factors that can produce this distinct entertainment value it is impossible to develop an all inclusive list. However, the elements that are most often responsible for larger attendances than would be predicted given the absolute skill level of the contestants, the uncertainty of the outcome, or the probability that the fans would experience the vicarious pleasure of winning can be delineated into several groups.

Socio-cultural considerations seems to effect hockey attendance much more than other professional sports in that Canadian markets are evidently superior to their American counterparts with respect to fan support ceteris paribus. No American city in recent years has ever supported a losing major league hockey team with capacity crowds over an extended period of time while two Canadian teams, the Toronto Maple Leafs and Vancouver Canucks have enjoyed outstanding attendance despite their lack of competitiveness. Since it entered the league prior to the 1970-71 season Vancouver has had the third worst record in the N.H.L. on four occasions and has never finished higher than ninth in the overall points standings yet has never failed to sell out its 15,570 seat arena to season ticket subscribers.[23] Similarly, the Toronto Maple Leafs have operated at one hundred per cent of capacity, since the 1946-47 season even though they have been out of championship contention for almost a decade.[24]

The presence of a strong rivalry between teams, especially if the rivalry is expressed in a violent manner, also tends to lead to increased attendances according to several knowledgeable hockey managers.[25] In fact some firms have emphasized the more violent aspects of the game, particularly fighting, more than its intrinsic speed or skill.[26]

Record breaking performances by individual athletes have also been known to have a positive effect on attendance. For instance, despite the fact that they finished in second place during the 1965-66 season and recorded a first place finish in 1966-67 the Chicago Black Hawks' attendance was higher in the former rather than the latter season, largely because Bobby Hull broke the fifty goal record in 1965-66. Similarly, the Boston Bruins' attendance increased, despite dropping a position in the standings, in Bobby Orr's rookie season of 1966-67.[27]

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[23] 1976-77 N.H.L. Guide, pages 157-165.
[24] J.C.H. Jones, "The Economics of the N.H.L.", Canadian Journal of Economics, Vol. 2 (Feb., 1969), page 8.
[25] Personal Interview, Mr. William MacFarlane, Feb. 16, 1976.
[26] Jerry Kirshenbaum, "Heated Signs of Icy War", Sports Illustrated, Nov. 10, 1975, page 93.
[27] J.C.H. Jones, "The Economics of the N.H.L.", Canadian Journal of Economics, Vol. 2 (Feb., 1969), pages 16-17.

The presence of outstanding performers also tends to increase attendance even when the outcome is not very much in doubt and there is very little probability that the local fans will be able to experience the thrill of victory vicariously through their hockey team. The Houston Aeros of the W.H.A. drew an average of 9,309 fans per road contest compared to 7,502 fans per road game for the average W.H.A. club during the 1974-75 season.[28] The Washington Capitols who averaged just under 10,000 fans per game experienced several capacity crowds of over 17,000 in 1975-76 when the defending Stanley Cup Champion Philadelphia Flyers were the visiting team.

The arena itself can also be viewed as a determinant of the game or product's quality in that a modern, clean facility with ample parking and easy access provides a superior package as it adds to the customers' enjoyment and convenience. Franchises lacking particularly outstanding facilities still enjoy excellent attendance if they ice competitive teams because they sell a high percentage of their seats on a seasonal basis. However, in areas with a low demand for hockey a poor arena or location can have a significant effect on the walk in gate.[29]

Scheduling can also affect the product's utility especially in low hockey demand areas, as attendance is lower when too many games are presented in too short a time period.[30] Once again a franchise experiencing a high demand for its product need not greatly concern itself with scheduling because it sells a large proportion of its seats to season ticket subscribers while the franchise owner experiencing a substantially lower demand for hockey must place greater reliance on foot traffic.

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[28] 1975-76 W.H.A. Media Guide, page 82.

[29] Don Ramsey, "Red Wings Face Losses of $1 Million", Toronto Globe and Mail, Oct. 30, 1976, page 50.

II. History of the Industry

The formation of the N.H.L. in 1917 signaled the start of the major league hockey industry. The league began operations with six teams, all of them situated in Canada, and a twenty-two game schedule but by the 1926-27 season had increased its membership to ten clubs, six of which were located in the United States, and doubled its regular season schedule to forty-four games. Franchise transfers and name changes were frequent during this period. The Quebec franchise which commenced operations during the 1919-20 season was shifted to Hamilton in 1920 and finally to New York prior to the 1925-26 season where the club became known as the Americans. Similarly, the Toronto entry operated under three different names during this period the Arenas, the St. Patricks, and finally the Maple Leafs.[31] This era was noteworthy for three events: First, the utilization of franchise transfers in an effort to ensure the viability of member firms. Second, the addition of the American teams making the industry binational in scope. Finally, the dramatic increase in both league membership and the number of games scheduled.

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[30] Personal Interview, Doug Wenshclag, Director of Marketing, Edmonton Oilers, Aug. 26, 1976.

[31] Gerald Eskenazi, The Fastest Sport, Page 53-54.

The next twenty years from 1926 to 1946 which spanned the Depression and the war years were ones of retrenchment for the league. Only six of the ten firms in existence during the 1926-27 season were still in business in 1942-43.[32] Particularly vulnerable were clubs sharing a city with another team. The Montreal Maroons and New York Americans were forced to cease operations when they could not successfully compete for attendance with the Montreal Canadiens and New York Rangers respectively as the latter two teams had superior on ice records. Three important events occurred during this period in the N.H.L.'s existence. First, the league membership was cut almost in half because team's attendance fell off during the Depression. Second, both teams sharing a franchise location were unable to remain viable; a trend which was to continue in later years. Third, the N.H.L.'s leadership made a dramatic change in 1946 when Clarence Campbell took over the presidency from Mervyn "Red" Dutton who had succeeded the league's original president, Frank Calder after the latter's death in 1943.

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[32] Gary Ronberg, The Hockey Encyclopedia, pages 19-22.

The next twenty years were ones of consolidation for the league ~~as~~ its membership remained stable at six firms, Montreal, Toronto, Boston, Detroit, New York and Chicago. The only developments of note were the commencement of a pension plan in 1948, and the establishment of an intra-league draft in 1954. By 1965 most firms had reached a plateau in revenues as Chicago and Montreal were over one hundred per cent of capacity while Toronto was just below capacity and Detroit, New York and Boston operated at 96, 80 and 85 per cent of capacity respectively. The clubs were approaching the upper limits on revenues from in-person attendance because of the finite limits on the size of arenas, the number of games played and the ticket prices charged.[33]

The league sought to overcome these limitations on its revenues by obtaining a national television contract with a major American network. However, before it could attain this objective the N.H.L. had to establish a national market for its product by expanding into important market areas in California, the American Mid-West and along the Eastern seaboard that it had previously neglected during its period of consolidation.[34]

The N.H.L. radically changed its structure when it doubled its size in 1967 through the addition of six new firms the California Seals, the Los Angeles Kings, the Minnesota North Stars, the St. Louis Blues, the Philadelphia Flyers and the Pittsburgh Penguins. The expanded market dramatically changed both the mode and amount of travel done by clubs in that jet travel now had to be utilized where train travel had previously been the most common form of transportation. However, the greatest fundamental change in league structure necessitated by expansion was to occur with respect to the player reservation system's method of distributing the playing rights to athletes within hockey's amateur feeder systems.

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[33] J.C.H. Jones, "The Economics of the N.H.L.", Canadian Journal of Economics, Vol. 2 (Feb. 1969), page 18.
[34] Beddoes, Fischler, Gitler, Hockey!, page 92.

The league had previously operated a sponsorship system in conjunction with the governing body of amateur hockey in Canada, the Canadian Amateur Hockey Association (C.A.H.A.), that allowed each N.H.L. club to sponsor a number of amateur teams either directly of indirectly and thereby obtain the playing rights to the individuals on these sponsored teams. The net effect of this agreement was to provide the N.H.L. with effective control of amateur hockey in Canada.[35]

Three factors in the C.A.H.A.-N.H.L. agreement provided this control. First, the C.A.H.A. recognized the N.H.L. as the sole and exclusive governing body and bargaining authority for professional hockey. Second, the N.H.L.

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[35] Bruce Kidd and John MacFarlane, The Death of Hockey, pages 54-58.

obtained direct access to the labor market by sponsoring teams. Technically, sponsorship gave a professional team the exclusive right to direct the affairs of any two amateur teams. However, due to ownership and affiliation at the minor professional level each N.H.L. club directed eight or more amateur teams. In addition to this N.H.L. two sponsored clubs rule, the C.A.H.A. definition of a club included Senior, Intermediate, Junior or Juvenile, Midget and Bantam teams which gave rise to a chain of affiliates that furthered the degree of vertical integration between amateur and professional teams.

Third, control over individual players was extended by the use of "try out" ("A" form) and "option" ("B" and "C" forms) agreements which attempted to bind amateurs to a particular professional club when they reached sixteen years of age. While the "A" form merely gave a club negotiation rights, the "B" and "C" forms gave the club an exclusive continuing option on the player's services both amateur and professional. The N.H.L. attempted to reduce inter-club rivalry in the signing of "B" and "C" forms through the use of the protected list and an amateur draft. The former allowed each N.H.L. club to protect a limited number of players, other N.H.L. teams being forbidden from negotiating with athletes on another club's list, while the latter provided access to the amateurs not on protected lists.[36]

The sponsorship system became unworkable when the N.H.L. expanded to twelve teams because the new firms could not establish their own vertically integrated sponsorship systems very easily as most of the better areas were occupied by existing teams. Moreover, considerable lag time would have been required before the expansion teams' sponsored clubs productivity approached a respectable level.[37]

The league responded to the aforementioned problem by phasing out the sponsorship system and substituting a universal amateur draft in its stead. The N.H.L. club's protected lists of amateur hockey players were frozen after the completion of the 1965-66 season with all other amateur players being eligible for the draft upon reaching a qualifying age. The number of players on the protected list gradually declined over the next few years as the individuals whose names were on the list at the conclusion of the 1965-66 season entered the professional ranks. The 1969 universal amateur draft marked the first time that all amateur players in the world who met the age of eligibility requirement were eligible for the draft.[38]

According to the new agreement with the C.A.H.A.

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[36] J.C.H. Jones, "The Economics of the N.H.L.", Canadian Journal of Economics, Vol. 2 (Feb. 1969), pages 11-15.
[37] Gerald Eskenazi, A Thinking Mans Guide to Pro Hockey B , page 200-201.
[38] 1972-73 N.H.L. Guide, page 134.

"tryout" and option agreements were discontinued with all amateurs reaching the age of twenty-one being eligible for the draft. The N.H.L. was to pay a set amount to the C.A.H.A. for each player drafted, who in turn passed a portion of this development money back to the amateur hockey operators. A final provision of the new C.A.H.A.-N.H.L. agreement established a fund to assist in developing players. This agreement was somewhat modified later by lowering the eligibility age to twenty from twenty-one.

Many experts expressed fear that the lack of parity between expansion and established teams, coupled with a dilution of the N.H.L.'s absolute skill level would prove a financial disaster for the league. However, these fears proved for the most part to be exaggerated as several teams notably Minnesota, Philadelphia and St. Louis proved to be almost immediate financial successes. The expansion clubs were reasonably competitive with their established sisters, winning forty games, double the number predicted by many experts.[39]

Encouraged by its success the league added two more teams in 1970, the Vancouver Canucks and the Buffalo Sabres. The financial success being enjoyed by the league was reflected in the much higher entry fee charged the new firms ($6,000,000 each) as opposed to the $2,000,000 paid by the

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[39] "Hawk On the Wing", Time Magazine, March 1, 1968, page 44.

1967 expansion teams.[40] Both of the new clubs were resounding financial successes, the Canucks selling out their 15,570 seat Coliseum to season ticket subscribers from their first day of operation and the Sabres increasing the size of their arena from 15,534 to 16,433 seats over the next few years without being able to satiate the demand for tickets.[41]

In 1971 the structure of the major league hockey industry was altered radically when two sports entrepreneurs Dennis Murphy and Gary Davidson, doubtless inspired by the aforementioned success stories, organized a second cartel, the World Hockey Association (W.H.A.) with the express purpose of competing with the N.H.L. for the major league hockey dollar.[42] Overnight the N.H.L.'s traditional monopolistic position with respect to the recruitment and retention of players was changed to one of duopoly. Predictably, operating costs in general and player's salaries in particular rose dramatically. The break-even point for an average N.H.L. franchise doubled from $1.75 million in 1971 to $3.5 million in 1975, while the average N.H.L. player's salary nearly tripled from $28,000 to $75,319 over the same period of time.[43]

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[40] Gerald Eskenazi, A Thinking Mans Guide to Pro Hockey, page 191.

[41] Beddoes, Fischler, Gitler, Hockey!, pages 153 and 150.

[42] Gerald Eskenazi, The Fastest Sport, pages 62-65.

[43] Hugh Townsend, The Halifax Chronicle Herald, "Facing Facts", Dec 17, 1975, page 23.

The two cartels engaged in a land grab battle for the most promising undeveloped markets either one hoping to secure the best franchise sites for itself. Despite complaints about further diluting its product the N.H.L. expanded to Long Island and Atlanta in 1972 thereby denying the W.H.A. access to the recently completed modern arenas in these two cities. A similarly motivated expansion occurred when Kansas City and Washington were admitted to the N.H.L. circuit in 1974.

Meanwhile the W.H.A. aggressively established a twelve team league concentrating on smaller Canadian cities (Edmonton, Calgary, Quebec and Winnipeg), N.H.L. cities and metropolitan areas with apparently excess hockey demand (Philadelphia, St. Paul, Chicago, New York, Boston, Los Angeles, Vancouver and Toronto) and American cities with suspect hockey markets such as Phoenix, Houston, San Diego, Denver, Indianapolis, Cleveland and Cincinnati.** To date the new league's attempts to successfully compete with the N.H.L. in its territory have been dismal failures. The W.H.A. clubs have had to cease operations or shift their franchises in every instance where the two have competed head to head.

Its lack of product differentiation has severely handicapped the W.H.A. in its efforts to attract more fans. The league is still not legitimized as being major league to

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** 1975-76 W.H.A. Media Guide, page 40-43.

the same extent as the N.H.L.. largely because its player inputs are not as highly regarded as those of the older circuit. Moreover, it suffers from a shortage of top flight facilities as no fewer than six of the clubs operate out of arenas that are below N.H.L. standard.

The W.H.A. has developed four advantages over the N.H.L. with respect to attracting franchise applicants. First, its entrance fee of $1.5-2.0 million is some $4-4.5 million lower than the N.H.L.'s. Second, it should be easier to build a contending W.H.A. club because not only does each team receive more opportunities at the top amateur players in the draft, as there are fewer W.H.A. clubs hence more chances to select players, but it also has access to N.H.L. free agents. Third, the W.H.A. has been less rigid than the N.H.L. in accepting franchises with substandard buildings. Finally, W.H.A. teams operating budgets are much lower than their N.H.L. counterparts being in the neighborhood of $2.5-3.0 million annually as opposed to the $3.5-4.0 million budgets of N.H.L. clubs.[45]

The early history of the W.H.A. is much like that of the young N.H.L. Franchises have been repeatedly established, sold, shifted, and declared insolvent with only four (Edmonton, Quebec, Winnipeg and Houston) of the original twelve franchises being stationary over the leagues five years of existence. Other franchises have been established and failed in such diverse locations as Boston, Cleveland, Los Angeles, New York, New Jersey, Denver, St. Paul, Vancouver, Detroit, Philadelphia, Toronto and Baltimore. However, despite the large number of franchise relocations the W.H.A. appears to be stabilizing to a degree with five teams either making money or approaching their break even point while another firm the Edmonton Oilers would have almost undoubtedly been solidly in the black if its team was a contender.[46]

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[45] Doug McConnell, "Economics, Parity Immediate Fanchise, All Factors in Roadrunners Joining W.H.A.", The Hockey News, Oct. 12, 1973, page 31.

Noll has delineated a two phase sequence of events for a new league. In Phase One the new cartel's strength is tested economically as it enters intense competition for players with the established league and proves that it can inflict financial losses on its rival by bidding up operating costs, particularly player's salaries. A merger is negotiated in Phase Two resulting in an interleague championship playoff and a tightening of the player reservation system which in turn forces a reduction in player salaries, thereby reducing operating costs.[47] Using Noll's typology the W.H.A. appears to be at Phase One and Three Quarters. There is ample evidence of interleague discussion and cooperation which many observers feel will eventually lead to some form of accommodation such as a common universal draft if not an outright merger.[8]

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[46] The Hockey News, March 5, 1976, page 27.
[47] Roger G. Noll, "The Team Sports Industry: An Introduction." , Government and the Professional Sports Business, page 5.

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[8] Lawrence Martin and Don Ramsey, "N.H.L. and W.H.A. Executives Discussing Consolidation", Toronto Globe and Mail, March 16, 1976, page 36.

IV - Sources of Revenue

(A) Revenues

1. In-Person Attendance Revenue

(i) Regular Season

In-person attendance is the single greatest source of revenue in the major league hockey industry, accounting for at least seventy percent of most clubs' income. Unfortunately, it is extremely difficult to obtain accurate financial data about the magnitude of these revenues as clubs are reluctant to disclose financial information. Consequently, it was necessary to estimate in-person attendance revenues from information garnered through magazine and newspaper articles as well as a questionaire that was mailed to every firm in the industry. Eight of the twelve W.H.A. firms and ten of the eighteen N.H.L. clubs responded to the questionaire. However, a problem was encountered in that some questions were incomplete. For example, only four teams in either league provided information concerning the distribution of seats within the various price ranges.

Interpretation of the attendance and ticket price information was complicated by several problems. First, the attendance information may have been somewhat unreliable as some teams may have overestimated attendance for publicity reasons or included persons receiving free tickets in their attendance count.[49] Second, some clubs (usually those experiencing low demand for their product) practice extensive ticket discounting thereby lowering the average price per seat. Third, since as was previously noted only limited information concerning the distribution of seats within the various price ranges was available, estimates of the average price per seat were of necessity based on the price range. It was assumed that a relatively large number of seats would be included in the highest price range and so on with the lowest price range containing relatively few seats.

Fourth, the higher priced seats close to the ice and between the goal lines are usually in greater demand than the less expensive seats. This difference in demand for seat locations can lead to errors in calculating the average revenue generated per admission because the average price per seat as calculated using the seating distribution underestimates the amount charged each admittance as a larger percentage of the higher priced seats are sold when the firm is not utilizing its full seating capacity.[50] Finally, ticket price and attendance information for several

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[49] Gary Mueller", "Blues Financial Problems A Sign of the Times", St. Louis Post Dispatch, Feb. 10, 1976, page 2B.
[50] Pat Thompson, "North Stars Betting New T-shirts They'll Make Playoffs This Season", The Hockey News, Sept. 1975.

N.H.L. firms (Chicago, Detroit, Atlanta, St. Louis and Buffalo) was incomplete. However, relatively accurate estimates of the approximate price range and attendance could be made based on product demand.

The magnitude and limitations on the in-person attendance revenues generated by major league hockey clubs can be most conveniently examined by classifying the firms' market areas as being of high, moderate or low demand.

The two most important distinguishing features of a high demand area in the major league hockey industry are excess demand for tickets in conjunction with a high average price per seat. Firms in this position normally operate at full seating capacity, sell a large proportion of seating capacity on a seasonal basis and charge an average price per seat in excess of eight dollars. They practice little or no ticket discounting and generate regular season ticket revenues ranging from just under five to over six million dollars, depending on the size of their facility.

In-person attendance revenues in high demand areas are restricted by the finite limits on ticket prices, the number of games and the size of arenas. Ticket prices may have reached their upper limits at the present time as some high demand areas with contending teams report that they are slightly under capacity which indicates that their ticket prices are close to equilibrium with attendance.[51] Similarly, widespread complaints from fans and players indicate that the ceiling on the number of games played is also being approached. Each major league currently plays an eighty game regular season schedule, but exhibition and playoffs increase the total to over one hundred games for some teams. Similarly, the largest arenas seat eighteen thousand spectators and none hold more than twenty-one thousand including standees.[52] The N.H.L.'s record attendance of 725,448 was set by the St. Louis Blues during the 1972-73 season.[53] Although several teams have been able to expand their facilities to accommodate increased demand for their product, it is rarely possible to improve seating capacity by more a few thousand seats.[54]

Firms with moderate demand for their product operate at several thousand seats below capacity, charge appreciably lower ticket prices and practice more ticket discounting than clubs experiencing high demand. A typical club in a moderate demand situation has an average price per seat of between seven and eight dollars, averages approximately eleven to thirteen thousand spectators per contest and generates from three to three and three quarters of a million dollars in ticket revenue during the regular season.

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[51] Red Fisher, "Playoff Prices Hit $14 Tops For Canadiens", _The Montreal Star_, March 19, 1976, page B-2.
[52] _1976-77 N.H.L. Guide_.
[53] Paul Patton, "Black Hawks, Blues Have Inside Track for Orr ", _Toronto Globe and Mail_, June 7, S5.
[54] The N.H.L's St. Louis and Buffalo franchises have made the most extensive additions to their seating capacities, adding 6,000 seats each.

The primary restrictions on the in-person attendance revenues of clubs experiencing moderate demand is the quality of the product offered the public. If these enterprises operated teams with superior winning records they would almost undoubtedly also attain capacity attendance. In fact, several of the clubs experiencing moderate demand for their product once commanded capacity crowds, but have seen them dwindle with the deterioration of their on ice performance.[55] For example, Minnesota was consistently selling out by the 1971-72 season then the team's position in the standings began to decline. The average per game attendance fell from a high of over 15,000 in 1972-73 to 13,587 in 1974-75 and eventually to 9,661 during the 1975-76 season.[56]

Clubs with low demand for their product utilize less than half their seating capacity and have a low average price per seat as a result of their extensive ticket discounting. An average price per seat is difficult to calculate for these teams because of this extensive ticket discounting; however, it is certainly under six dollars and probably less than five in many instances.[57] These firms average under seven thousand fans per game and generate from just under one to two million dollars in gate receipts during the regular season.

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[55] Minnesota, Detroit, St. Louis, and Chicago operated at nearly one hundred percent of capacity at one time.
[56] Questionaire Information and The Hockey News, April 23, 1976, page 26.

Unlike firms with high or moderate demand these firms may face a more serious restriction on their revenue production than the size of their building or quality of their product in that they are quite possibly located in inadequate markets. If this is the case their alternatives are twofold; relocate in a more hospitable environment or cease operations. However, in practice it is often difficult to distinguish between inadequate market potential and poor product quality as the primary determinant of low demand since most clubs experiencing low demand are also uncompetitive. Moreover, the situation is complicated by the W.H.A.'s lack of product diffentiation in comparison to the N.H.L. which undoubtedly tends to distort its attendances in a downward direction. The W.H.A.'s Houston Aeros , who have participated in every W.H.A. final series since the league's inception, averaged only 9,177 fans per regular season contest while the Atlanta Flames, a mediocre N.H.L. club also located in a similar southern market averaged several thousand fans more per game.

(ii) In-Person Attendance Revenue - Playoffs

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[57] California Seals gave a discount of 1/2 price in lower priced seats to Students.

Unlike many other professional sports such as baseball and football, in which a small percentage of the teams engage in post seasonal play, only one third of the firms in either of hockey's major leagues fail to qualify for the playoffs. However, the number of teams engaging in post seasonal competition is greatly reduced after the first playoff round, usually a short series of three or five games, is completed. The firms with more talented and skillful squads reap the biggest monetary rewards during the playoffs because they continue to generate additional in-person attendance revenues while other clubs are eliminated.

Due to the fact that major league hockey firms operate under a high fixed cost structure, playoff games constitute an important source of revenue because they only marginally increase operating costs but contribute substantially to revenue. On a per game basis playoff contests are much more lucrative than regular season matches, as uncertainty, the relative importance of each match, and the quality of the participants are all greatly increased.[58] Consequently, a higher demand is associated with playoff games which allows major league hockey firms to increase ticket prices during the playoffs and still experience greater attendance. The magnitude of these price changes vary considerably amongst the firms with most clubs raising prices by at least a dollar per seat while some such as the Chicago Black Hawks increase them by fifty percent at playoff time.[59] Meanwhile the clubs only major variable playoff expenses are playoff bonuses to the players, arena rental and travel.

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[58] The average regular season attendance for the 720 game 1974-75 N.H.L. schedule was 13,224 fans while an average of 15,375 fans attended the 51 playoff matches that season. 1975-76 N.H.L. Guide, page 208.

An example may further demonstrate how much additional revenue can be generated through post seasonal play. The Philadelphia Flyers, an N.H.L. with a high consumer demand for its product, played ten home games during the 1975-76 playoff year. Their facility, the Spectrum, seats 17,077 for hockey and an average price per seat of at least nine dollars was almost undoubtedly charged by the club. Since, total home game attendance for the ten playoff contests was 170,770 the Flyers probably generated a gross playoff revenue of at least $1,536,930 on ticket sales alone.

2. Auxiliary In-Person Attendance Revenues

Auxiliary in-person attendance revenues include commodities such as concessions, parking, souvenirs and programs that are sold to those in attendance at contests. All of the revenues generated through the sale of these items do not normally accrue solely to the hockey operation but are usually split with the arena's ownership. The nature of the split is determined by the lease agreement which is in turn subject to negotiation between the hockey club and its landlord. Since in many cases the arena and the hockey club are owned by the same party the negotiation process becomes essentially one of transfer pricing between divisions of the same company.

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[59] Red Fisher, "Playoff Prices Hit $14 Tops For Canadiens", The Montreal Star, March 19, 1976, page B2.

Of the four sources of auxiliary revenue, concessions and parking are the two most likely to require a split between landlord and tenant, while the club is most likely to retain exclusive rights to the program and souveneir sales although the latter have also been known to be shared. Conversations with administrators of public arenas revealed that gross sales of concessions averaged approximately $.60 per person while on the average every fourth person purchases a program or magazine. Thus a hockey firm experiencing excess demand and averaging 16,500 spectators per contest can expect to receive a share of some $400,000 in concession sales and $150,000 in net program revenue over the course of the regular season. The sale of advertising within the program more than absorbs it's production costs.

The amount of revenue accruing to a professional hockey club through the sale of parking priveleges is dependent on several factors besides the split stipulated in the lease agreement, such as the location of the arena and the presence or absence of a well developed, efficient, public transportation system. One of the preconditions for acceptance into the N.H.L. is that the applicant must have parking space for 5,000 automobiles within easy walking distance of the arena.[60]

Souvenir sales are dependent on both the total attendance and the popularity of the team. Attendance is important because a large proportion of souvenir sales occur during the hockey games themselves while some very popular clubs, notably the Philadelphia Flyers have also been very successful in merchandising their souvenirs through the mails. The popularity of a team seems to be determined by either its recent on ice success (Philadelphia Flyers, Boston Bruins) or lengthy tradition (eg. Toronto Maple Leafs).

3. Broadcasting Revenues

(i) Relative Importance

Although they account for between fifteen and twenty percent of most N.H.L. clubs total revenues broadcasting sales are still not as crucial to the long run viability of a major league hockey enterprise as they are in other major professional sports businesses. Major league hockey is the only professional sport where most firms could operate profitably without broadcasting revenue.[61] Nevertheless, broadcasting contributes significantly to a major league hockey club's viability because not only does it generate much greater revenues but also is probably the best way to attract the marginal viewer and educate him to the game's somewhat complicated and unfamiliar rule structure.

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[60] "More Local Ownership Amongst Obstacles Facing Denver Bid for N.H.L.", The Hockey News, March 22, 1974, page 13.
[61] Ira Horowitz, "Sports Broadcasting", Government and the Sports Business, page 290.

Unfortunately, the positive effects of broadcast sales on total revenue may be outweighed by inelasticities with respect to in-person attendance created through the televising of contests, particularly home games.

Measurement of any inelasticities that may occur as a result of television broadcasts is complicated by three factors. First, it is extremely difficult to estimate to what degree telecasts of hockey games, whether they be home or away contests, are meeting the demand for major league hockey in market areas that are operating at under one hundred percent of seating capacity due to the difficulty of measuring the reason behind a decline in attendance for a given game. Second, hockey firms enjoying a high demand for their product sell a large proportion of their seats on a seasonal basis. These seats are often included in the attendance count even when they are not occupied. Consequently any change in consumer utility that may have occurred as a result of television broadcasts is practically impossible to measure as attendance is probably the best indicator of consumer demand.

Controversy surrounds the entire issue of whether or not broadcasts reduce "live" attendance at home games. As one would expect the evidence with regards to this matter, is mixed. For example, the Boston Bruins had four out of ten games carried nationally by C.B.S. during the 1956-57 season, playing New York twice and Montreal and Detroit once each. The Bruins received $10,000 for each of these games but still lost money because the average "live" gate from these contests was only $14,892 as compared to $24,910 per game "for non-technical engagements against the same clubs".[62]

On the other hand, while Boston may have experienced revenue loss in this particular instance more recent evidence indicates that their attendance is no longer greatly affected by television. For the past several seasons the Bruins have consistently broadcast more games over commercial television than any other U.S. based N.H.L. firm, televising sixty games (thirty-six of them at home). Despite the frequency of home game telecasts the Bruins have maintained near capacity crowds over the last several years up to 1976-77. Similarly, attendances at Montreal and Toronto have remained in excess of one hundred percent of seating capacity even though both these clubs televised all of their home games. Furthermore, the New York Rangers continue to sellout Madison Square Gardens with its 17,500 seat capacity although they broadcast thirty-one of their forty road games on commercial television and all forty home games via cable television.

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[62] J.C.H. Jones, "The Economics of the N.H.L.", Canadian Journal of Economics, Vol. 2 (February, 1969), page 18.

(ii) Broadcast Production

Most firms sell their broadcasting rights to a local television and or radio station relying on them to "package" the games, that is hire the announcers, provide technicians and equipment, and sell commercial time to sponsors. However, some firms in recent years have been doing their own packaging by producing the games, purchasing commercial air time and then selling the total product to sponsors.[63] The former procedure has a distinct advantage in that it does not increase a club's operating costs because production costs are assumed by the station, while the latter allows a major league hockey operation to both avoid the middleman and maintain greater control over its product.

The member firms of each major league of hockey pool their broadcasting priveleges when negotiating national broadcasting packages but negotiate local telecasts individually. The revenues generated through national broadcasts are divided evenly amongst the clubs with each firm retaining all revenues garnered through the sale of broadcasting rights to games not included in the national package.

(iii) Viewer Response

To date, the untold riches that were supposed to pour forth from the major U.S. television networks' cornucopia after the N.H.L. achieved a national television market through expansion, have not materialized. The N.H.L. has been placed at a severe disadvantage vis a vis the networks with respect to negotiations due to the poor ratings received by telecasts of both the N.H.L. game of the week and the Stanley Cup playoffs. For the first time since 1967 the N.H.L. does not have a national T.V. contract with a major U.S. network but is instead relying on its own independent network, which reaches about 70 percent of the total American viewing audience.

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[63] Bill Fleishmen, "Flyers Radio-TV Program Could be a Model for N.H.L.", The Hockey News, Dec. 5, 1975, page 12.

Poor viewing response to hockey telecasts is thought by some observers to emanate from two sources. First many American fans are unfamiliar with the game, somewhat confused by its rule structure, and do not possess an appreciation of its more subtle aspects. This is especially true in geographical areas such as the south and the west coast where hockey has never enjoyed widespread popularity at the amateur level. Second, hockey because of its speed and peripheral action is perhaps the most difficult of the major team sports to televise well. It requires numerous cameras, technical people who understand the game, and superb coordination between the two to catch the action.[64] The major U.S. networks have apparently lacked sufficient expertise to package their games properly.[65]

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[64] "Canadian Producer Lauds NBC for N.H.L. Television Presentation", The Hockey News, Jan. 26, 1973, page 5.

Hopes for increased hockey coverage have, however, brightened somewhat in recent years with the advent of international hockey competition between North American professional and European teams. The ratings for these international matches have been outstanding in comparison to those enjoyed by N.H.L. regular season and Stanley Cup playoff games. For instance the game between the defending Stanley Cup champion Philadelphia Flyers and the Soviet Red Army club that culminated a Soviet tour during the 1975-76 season delivered a 10.9 Neilson rating for 2,640,000 homes per average quarter hour. Over 5,440,000 fans watched this final game.[66] Similarly, six times as many viewers saw the United States play Finland in the 1975 Winter Olympics as witnessed the Stanley Cup finals the previous year. Moreover, over thirty percent of the entire U.S. viewing audience saw the Russian victory over the Czechoslovakian team during the same Olympics.[67] Many professional hockey managers and administrators are hoping that the popularity of international hockey competitions will not only prove to be an important new source of income but provide an impetus towards the popularization of the game in North America by attracting the marginal viewer.[68]

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[65] Gary Deeb, "NHL is Going Down the Tube on the Tube", as reprinted in Hockey Digest, Jan. 1975.

[66] "NHL Sets Up own Television network to Air Stanley Cup Final Playoffs", The Hockey News, Apr. 2, 1976, page 2.

[67] Ken McKenzie, "Passing the Puck", The Hockey News, page 4.

(iv) Magnitude of Revenues

Current figures on the amount of television revenue received by each United States based N.H.L. club are unavailable, but some other information that will serve to shed light on the magnitude of these revenues has been uncovered. In 1967 the N.H.L. signed a three year deal with the C.B.S. network that paid each American team $100,000 for each of the first two years and $150,000 in the third. In addition, most of these clubs also received at least $200,000 in local broadcast sales. However, there were wide inter club differences in the amount of television revenue received. For example, Los Angeles garnered $500,000 from television while Pittsburgh received only $190,000. The Boston Bruins who televise more games over commercial television than any American N.H.L. club had an income of $565,000 from broadcast sales in 1971.[69]

The Canadian based N.H.L. teams' national T.V. contract has long been the envy of the American clubs. Montreal and Toronto both receive in excess of $1,000,000 annually from their contract with the C.B.C. while Vancouver garners over $600,000.[70] Hockey Night in Canada which is packaged by the

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[68] Peter White, "Campbell Sees Russia Series New Hockey Horizon", Toronto Globe and Mail, Sat. Dec. 6, 1975, pg. 43.
[69] Roger G. Noll, "The Team Sports Business: An Introduction", Government and the Sports Business, page 25.
[70] Gerald Eskenazi, A Thinking Mans Guide to Pro Hockey, page 159-160.

N.H.L.'s marketing arm, National Hockey League Services Incorporated, is one of the most popular shows on Canadian television. A Bureau of Broadcast Measurement (B.B.M.) study conducted in November of 1974 indicated that the Saturday Hockey Night in Canada broadcasts were watched by 4,592,000 people. Of the 3,150,000 viewers along the English network 1,525,000 were males over eighteen years of age while the French telecasts attacted 1,442,000 viewers. Only two other programs had larger audiences of men eighteen and over and one of them was the Wednesday night hockey telecast.[71] In addition to their national television contract both Montreal and Toronto broadcast a large number of their contests locally. Vancouver is also striving to make greater use of local broadcasting.[72]

W.H.A. firms have enjoyed considerably less success than their N.H.L. counterparts with respect to broadcasting revenues. The Toronto Toros (currently the Birmingham Bulls) led the league during the 1975-76 season in the number of games televised with twenty-two. However, several clubs did not televise any games and most of the teams that did broadcast under ten.[73] Although, as Horowitz has pointed out, the fact that a professional sports firm televises few of its games does not necessarily mean that its television broadcast revenues are insignificant, but the club must have some other source of strength amongst the factors that determine the relative bargaining power of the franchise owners and television stations or networks.[7*] At the present point of time no W.H.A. firm appears to enjoy any noticable strength with respect to the determinants of bargaining power. W.H.A. television revenues, consequently, are probably considerably below those of their N.H.L. counterparts with even the most successful clubs receiving less than two hundred thousand dollars in revenue from this source.

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[71] "TV Audience Near 5 Million", The Hockey News, Nov. 1, 1974, Page 37.
[72] Tony Gallagher, "Canucks Financial Success Now Something to Bank On", The Hockey News, June 1976, page 22.
[73] 1975-76 W.H.A. Media Guide, pages 4-31.

4. Interest Revenue

Due to the industry's cash flow structure its member firms situated in high demand areas are able to garner substantial interest revenues. It is not uncommon for 15,000 season tickets to be sold in a high demand area at an average price in excess of $320 per seat. Season ticket subscribers normally pay cash for their seats in August or September, creating a large positive cash flow of some $4.5 - 5.0 million. Expenses, on the other hand, accrue more gradually over the course of the eight month season and thus a portion of the season ticket revenues can be utilized in the form of short term investments that can yield several hundred thousand dollars in interest revenues for the club.

[7*] Ira Horowitz, "Sports Broadcasting", Government and the Sports Business, page 296.

The primary determinants of these interest revenues magnitude are the number of seats sold on a seasonal basis, the average price per seat, and the nature of the investment.

V.- Expenses

A. Operating Budgets

There are significant inter league differences in break-even points between W.H.A. and N.H.L. firms. The average N.H.L. club operates on a $3.5 million dollar budget while a typical W.H.A. team has an operating budget some $500,00 - $1,000,000 lower.[75] A W.H.A. team requires an average attendance of nine thousand spectators a game for the forty regular season home games (assuming an average admittance price of $7.00) to break-even in comparison to 12,500 persons per contest for an NHL team ceteris paribus.[76] This differential occurs as a result of a concerted effort by most W.H.A. clubs to keep operating costs down by satisficing with respect to numerous important expense items such as player inputs, administrative staffs, farm systems and scouting.

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[75] "Got Money to Burn Buy a W.H.A. Franchise", The Montreal Star, Sat., Oct. 11, 1975, page G-3. "Campbell Gives NHL Blunt Warning Cut Costs or Weaker Teams Will Fold", The Hockey News, May 23, 1975, page 2.

[76] Alan Richman, "Total Insanity in the Sports World", The Montreal Star, March 12, 1076, page B-2.

1. Player Salaries

Major league hockey's player salaries have skyrocketed with the advent of the W.H.A. to the point where they currently account for approximately forty percent of a typical firm's total operating budget.[77] The average N.H.L. salary which was $28,000 in 1971, the year the W.H.A. commenced operations, has risen to over $75,000 per man in the ensuing five years.[78] The average N.H.L. firm now allocates some $1,500,000 towards its twenty man major league roster while the typical W.H.A. team operates on a major league player salary budget of between $1.1 - $1.3 million and pays an average salary of in excess of fifty thousand dollars per player.[79]

Wide inter team differences in salary levels exist between teams within the same league as a result of both variations in the quality of the player inputs employed by the firms and the degree to which clubs' salary expenditures are subject to tight cost control and cost benefit analysis. The more talented hockey players are in stronger bargaining positions vis a vis management with respect to salary negotiations than their less skillful bretheren. Thus the firms with better teams naturally have higher player salary budgets. For example the Montreal Canadiens hockey club is considered by most experts to be the most talented team in the industry and appropriately enough has a major league payroll estimated at $2,000,000 while the Washington Capitols widely regarded as the worst team in N.H.L. history have a major league payroll of only $1,000,000.[80] Similarly the Houston Aeros, a perennial championship contender in the W.H.A. has an average salary of $77,000 per man, considerably above the league average.[81]

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[77] George Hanson, "Putting a Price On Team Canada", The Montreal Star, Aug. 12, 1976, page B-4.

[78] "Campbell Gives NHL Blunt Warning: Cut Costs or Weaker Teams Will Fold", The Hockey News, May 23, 1975, page 2.

[79] "Time Running Out on Saints As Creditors Continue to Close In", The Hockey News, Jan. 16, 1976, page 27. The Saints had a $1.3 million budget for 27 players.

Inter team variations in salary level resulting from differences in the productivity of player inputs are comparitively easy to understand. However, evidence indicates that a substantial proportion of inter team salary differentials occur as a result of inadequate cost control and cost benefit analysis on the part of management than are due to actual differences in player quality. For instance, four N.H.L. firms the St. Louis Blues, Pittsburgh Penguins, New York Rangers and Vancouver Canucks all indicated that their twenty man major league salary budgets exceeded $1,500,000 while another N.H.L. club the Boston Bruins reported that it paid under $1,500,000 in major league salaries. However, the Bruins were thirty one points ahead of Pittsburgh, the best of the aforementioned group of firms, in the final standings at the conclusion of the 1975-76 season. Moreover, the case of the New York Rangers is particularly shocking in that if newspaper accounts of their annual major league payroll are correct it is over 2.3 million dollars or half again as great as the Bruins although the Rangers completed the 1975-76 schedule forty-six points in arrears of Boston. Clearly something is amiss in any business where such marked discrepancies between performance and resource allocation exist.

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[80] Don Ramsey, "100 NHL Farmhands Could be Among Unemployed", Toronto Globe and Mail, April 20, 1976, page 37.

[81] Testimony of Harrison Vickers, the Aero's owner, before the House of Representatives' Select Committee on Professional Sports. The Albertan, July 23, 1976, page 17.

Recent reports indicate that salary levels have reached a plateau and are now beginning to decline.[82] Seventeen of the eighteen teams that replied to the questionaire reported that the salaries of first and second round draft choices are declining and the sole exception stated that they were remaining stable. Moreover, an article in Sports Illustrated recently reported that the average N.H.L. salary has fallen 10% to $70,000 per annum while the average W.H.A. paycheck has declined an average of 15% to $45,000.[83]

This apparent decline in salary levels is the result of several factors effecting the supply and demand for hockey players. First, the expansion which has seen the number of teams in the industry skyrocket from six to thirty and the number of major league jobs increase from one hundred and twenty to six hundred over the last decade, has apparently stopped. All of the most viable franchise sites appear to be occupied and neither cartel is anxious to admit any new entrants that might prove to be a financial burden to the rest of the league membership.

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[82] James Christie, "Salaries Going Down in NHL Clarence Campbell Says", Toronto Globe and Mail, Aug. 27, 1976, page 28.
[83] Mark Mulvoy, "A Sellers Market", Sports Illustrated, October 20, 1975, page 31.

At the same time hockey has been burgeoning at the amateur level with more and more youngsters taking up the sport, no doubt spurred on by the increased prospects of employment in major league hockey brought about by expansion.

The number of Major Junior A calibre hockey teams has risen from twenty-one a decade ago to thirty-four at the present time.[84] Furthermore, the North American major professional leagues have begun to recruit more extensively from Europe. There were seventeen Europeans playing major league hockey during the 1975-76, season nine of whom performed for the W.H.A. champion Winnipeg Jets.[85] Moreover, although the number of outstanding American players is still quite small relative to the total population of major league players many experts predict that the day is on the horizon when the trickle of talent coming out of the American feeder system will become a flood. Sam Pollock, general manager of the Montreal Canadiens and regarded as one of the industry's most astute administrators has noted that, "We can see the talent developing. There will be quite an American nest.".[86]

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[84] Frank Orr, "Players Party is Over", The Hockey News, Oct. 16, 1975, page 16.
[85] 1975-76 W.H.A. Media Guide, page 30.

Due to the ceiling on the number of jobs available caused by the cessation of expansion these young, hungry players entering professional hockey from the amateur feeder system will supplant the less talented or older veteran players. When a veteran is beaten out by a younger player he is either traded to another major league club where he in turn replaces a less skilled player, retires from professional hockey or attempts to find employment in the minor leagues. However, the number of minor league teams has dwindled since expansion as former minor league cities such as, San Diego, Houston, Phoenix, Los Angeles, Cleveland, Vancouver, and Denver have acquired major league franchises. Moreover, the major league clubs who sponsor the remaining minor league teams naturally only wish to stock them with young players that possess the potential to eventually play for the major league squad. Thus the veteran journeyman hockey player must either reduce the asking price for his services or be faced with the spectre of unemployment. Over one hundred and fifty professional hockey players have joined the ranks of the unemployed since the 1974-75 season.[87]

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[86] J. Kaplan, "The Yanks are Coming", Sports Illustrated, Feb. 5, 1973, page 59.

2. Administrative Expenses

Although the bulk of administrative expenses accumulated by major league hockey firms consist of administrative staff salaries, the amount of funds allocated towards this item is subject to extreme fluctuation between firms within the industry as the number of staff members employed varies markedly. A minimal front office staff employs four or five people and has an operating budget of approximately $150,000, while a large staff employs an additional ten to fifteen individuals and has a $500,000 budget. It should be noted that the aforementioned budget estimates do not include the scouting system which is treated as a separate entity in this analysis.

3. Scouting

Scouting, the evaluation of playing talent at both the amateur and professional level, is one of the most crucial functions performed by hockey organizations as it is the key to developing a superior product. Failure to perform this function competently results in staggering wastages in terms of lost attendance revenues, dysfunctions within the organizational structure caused by discrepancies in salary level, working capital shortages brought about by the signing of inferior athletes to lucrative long term contracts, and tremendous losses in goodwill with regards to the sporting public.

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[87] Frank Orr, "Players Party is Over", The Hockey News, Oct. 17, 1975, page 16.

The functions of a scouting system are essentially four fold. First, the scouting staff evaluates the abilities of the amateur hockey players who are eligible for the draft, on a probabilistic basis according to their professional potential. Second, the scouts provide management with information on the strengths and weaknesses of the players currently in the professional ranks at both the major and minor league level which is used in trade negotiations with other firms within the industry. Third, the talent under contract to the scouts' own club is assessed in order to facilitate long and short run planning with respect to possible areas of improvement. Finally, scouts assist the major league coach in devising strategies to combat opposition clubs by keeping him informed as to any weaknesses in their style of play or personnel that he might be able to exploit.[88]

The amount of resources allocated towards scouting is largely dependant on the emphasis placed by management on the amateur draft as a source of player inputs. Some strong N.H.L. teams notably the Buffalo Sabres and Philadelphia Flyers have deemphasized amateur scouting in recent years because they find it increasingly difficult to draft individuals of high enough quality to crack their starting lineups.[89] Furthermore, W.H.A. clubs generally attempt to reduce their overheads by operating less extensive scouting systems than their N.H.L. counterparts. Thus great variety occurs in the amount of resources allocated towards the scouting function. For example the Edmonton Oilers of the W.H.A. had one full time scout on staff during the 1975-76 season and in addition to this individual's $12,000 salary paid $3,000 in scouting expenses. In comparison, some N.H.L teams employ as many as five or six fulltime scouts as well as three or more part time scouts.[90] The cost of operating such a scouting system is conservatively estimated at in excess of $200,000 annually.

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[88] Personal Interview with Mr. Ronald Caron, Assistant General Manager and Chief Scout, Montreal Canadiens, Nov. 18, 1975.

In addition to their own scouting staffs N.H.L. organizations also rely on a league operated scouting combine called the Central Scouting Service (C.S.S.) for information about the players eligible for the amateur draft. The C.S.S. consists of a nine man scouting pool that supplies identical information to every N.H.L. club.[91] Since the C.S.S. operates on a $375,000 annual budget with each scout receiving a $25,000 salary plus travel expenses it would seem reasonable to assume that a staff of four full time scouts could function satisfactorily on a $200,000 budget.[92] Affiliation with the C.S.S. costs each N.H.L. firm an additional $21,000 per annum.

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[89] Personal Interview with Mr. John Anderson, Director of Scouting, Buffalo Sabres, Nov. 27, 1975.
[90] Personal interview with Mr. Gordon Robson, Executive General Manager, Edmonton Oilers, August 26, 1976.
[91] Ralph Bridgeland, "How to Scout Players...and Save Money, Too!", The Hockey News, Jan. 9, 1976, page 3.

4. Interest Expense

Major league clubs, particularly those situated in low demand areas that sell few season tickets often incur substantial interest expenses that result from both long and short term cash shortages. Short term cash shortages occur because of the cash flow situation that exists with many clubs. Hockey firms absorb a large number of expenses such as league payments, administrative salaries, signing bonuses for rookie draft choices, and training camp expenses prior to the commencement of the regular season. Consequently, many teams, especially those without a large nucleus of season ticket holders, often find themselves with a temporary working capital shortage requiring deficit financing.

Long term debt is usually utilized to solve one or more of three types of financing problems. First, some firms use longer term financing to consolidate short term debts. Second, expansion teams often resort to long term debt financing because they initially have difficulty attracting sufficient fan support. Third, expansion clubs frequently utilize long term financing when paying their expansion fees.

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[92] The Hockey News, Dec. 19, 1975, page 2.

5. Player Development

The cost of operating a player development program is largely dependent on four factors: the ownership of the development club, the number of non roster players under contract, how early the aforementioned players were selected in the amateur draft, and the magnitude of the ticket revenue generated by the minor league operation.

Ownership of the development club is a prime determinant of player development costs because it decides how revenues will be shared and costs allocated. Minor league ownership arrangements cover a wide spectrum with sponsorship (complete ownership of the operation by a single major league firm) on one end of the continum and affiliation (local ownership of the franchise with some or all of the players being supplied by affiliated major league clubs) on the other end. Partnership, a subspecies of sponsorship in which two or more major league clubs pool their monetary and player resources to sponsor a development team, has become increasingly popular in recent years. Under a sponsorship arrangement the major league club retains all the revenues generated and assumes responsibility for every expense whereas both expenses and revenues are split according to a previously negotiated formula when an affiliation or partnership agreement is in force.

Disparities in the operating costs of development systems occur primarily as a result of differences in player salaries since the other expense items associated with operating minor league teams such as rent, travel, and administration are subject to only marginal variations between firms. These items generally absorb approximately $200,000 of the budget, about the same as a junior team located in western Canada. Salaries are subject to greater fluctuations in magnitude because of cost differences in both the quantity and quality of the non roster players under contract.

Three of the eighteen major league teams replying to the questionaire had under five non roster players in their minor league system while four other clubs had between fifteen and twenty four farmhands. Similarly, there are also marked differences in the major league potential of the individuals playing minor league hockey. Of the twenty-two first and second round draft choices twenty-three years of age and under who played thirty or more games on one of the eight American Hockey League teams during the 1975-76 season nine toiled for the Nova Scotia Voyageurs, the Montreal Canadien's minor league affiliate.[93]

Due to the unavailability of data it is impossible to make comparisons between the payrolls of minor league operations or for that matter even delineate the highest and lowest salaried rosters. However, Montreal's minor league affiliate, the Nova Scotia Voyageurs, operated on an $800,000 budget during the 1974-75 season approximately

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[93] The Hockey News, July 1976 and the 1975-76 NHL Guide.

$600,000 of which was devoted to player salaries.[94] Since the Voyageurs are considered by most experts to possess considerably more major league caliber talent than any other minor league operation no other farm club should have a larger payroll if it practices proper cost control.

Unfortunately, few farm teams are able to generate sufficient in-person attendance revenue to break even and consequently most must rely on subsidies from their major league owners to remain viable. The average price per seat at minor league games is somewhat lower than that charged at major league contests, varying between $3.^00 and $5.^00 depending on the degree to which ticket discounting is practiced. An annual regular season attendance of under 100,000 is considered poor, 150,000, fair to good and over 200,000, excellent. Only four of the fourteen clubs operating in the American Hockey League (A.H.L.) and Central Hockey League (C.H.L.) during the 1975-76 season approached or exceeded the latter attendance mark. On the whole the majority of A.H.L. and C.H.L. teams appear to be losing $200-300,000 annually.

6. Travel

Despite the fact that travel costs have been widely publicized as devouring a substantial portion of a club's operating budget they only account for approximately 10% of a W.H.A. team or 6.5% of an N.H.L. firm's total operating budget. The average annual distance travelled by an N.H.L. team is 47,000 miles, while the west coast clubs travel the most extensively with Vancouver and Los Angeles logging 72,000 and 65,500 air miles respectively.[95] Major league hockey firms do the vast majority of their travelling via airplane on regularly scheduled flights, and typically have travelling entourages of 23-28 people.[96]

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[94] Hugh Townsend, "Vees: They'll Turn the Corner with New Complex - Pollock", Halifax Chronicle Herald, March 12, 1976, page 27.

A team requires approximately fifteen hotel rooms per night for sleeping accommodations as the players are assigned roommates. In addition, each player receives a twenty-five dollar a day travel allowance when he is on the road to cover his meals, tips, and other miscellaneous expenses.[97]

The average club spends approximately $225,000 a year on travel including accommodations and meals with the west coast teams paying somewhat more at about $300,000 per year due to their more extensive travel schedules.[98]

Ownership of major league hockey firms is almost exclusively confined to private individuals, families or closely held corporations that are extremely reluctant to divulge any information with respect to the financial end of their operations. To the author's best knowledge, no member of the industry publishes an annual audited financial statement. Consequently, much of the financial information contained in this thesis must take the form of educated guesses based on information garnered through secondary sources such as newspapers, magazine articles and books as well as interviews with individuals connected with the industry. Despite their lack of concrete validation the author has reason to believe that his estimates of revenues and expenses represent an accurate appraisal of the financial conditions existing within the industry. This confidence stems from two sources. First, perusal of the one financial statement the author has had the pleasure of examining confirmed the validity of many of his estimates.[99] Second, conversations with individuals connected with the industry also served to confirm the estimates' authenticity.

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[95] "NHL Launches 59th Campaign with Less Travelling Miles", The Hockey News, Oct. 17, 1975, page 15.
[96] "Sports Travel Counters Trends", Aviation Week and Space Technology, Jan. 6, 1975, page 22.
[97] "NHL Owners, Players Sign 5 year Agreement", Edmonton Journal, Oct. 17, 1975, page 23.
[98] "Owners Seek Unbalanced Schedule to Stimulate Rivalries in NHL", Toronto Globe and Mail, March 30, 1976, page 34. (Note: these figures were confirmed on the Edmonton Oilers statement.)

7. Rent

Although rent of the game facility also accounts for a substantial portion of a major league hockey club's budget this item's magnitude varies considerably between firms. For example, in 1971, the Boston Bruins rent was $1,177,000, in contrast to the $60,000 paid by the Minnesota Fighting

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[99] Estimates of individual players contracts were extremely accurate.

Saints for the 1976-77 season.[100] These wide fluctuations in rental payments can largely be traced to the influence of two factors: the ownership of the facility and the bargaining power of the hockey firm vis and vis its landlord.

The arena's ownership affects the amount of rent charged in primarily two ways. First, where the ownership of the facility is the same as the ownership of the hockey club, the latter generally pays a higher rental rate than is usually charged by a comparable publicly owned facility. This practice not only serves to disguise the hockey operation's profitability but often also improves its tax situation by reducing its revenues. Second, the vast majority of major league hockey arenas that are not controlled by the hockey firm itself or an affiliated individual or corporate entity are operated by public or quasi public corporate bodies. These institutions, being offshoots of the municipal government, are very much concerned about the public interest and by and large consider the existence of professional sports franchises within a city to be of great social benefit as they not only legitimize a municipality as being "major league" but also provide a common meeting ground for its citizens.

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[100] Roger G. Noll, "The Team Sports Industry: An Introduction", Government and the Sports Business, page 25. "Crusaders to St. Paul?", Edmonton Journal, August 9, 1976, page 65.

Consequently, publicly owned arenas generally charge lower rental rates then privately owned facilities.

The relationship between a major league hockey firm and the arena company is one of mutual dependence. The firm must have a suitable facility in order to properly display its product while on the other hand the arena's owners are confronted with high fixed costs and consequently strive to reduce unused capacity by booking as many dates as possible. In as much as major league hockey firms occupy their home arena for at least forty and as many as fifty-five dates a year they are valuable tenants. However, due to their versatility with respect to the diverse types of events they can accommodate publicly owned arenas are not necessarily heavily dependent on rental revenues from the hockey operation, but since the marginal revenues from this source are greater than the marginal cost of producing them they serve to offset the arena operation's high fixed cost.

The bulk of the fixed costs associated with operating an arena consist primarily of interest and debt amortization while items such as maintenance, utilities, and refuse collection constitute the variable costs associated with the operation of the facility. The objective of an arena company's management is to more than cover the variable costs so that any surplus can be allocated towards reduction of the fixed costs. Okner has noted that based on the limited financial data available on the operating costs of professional basketball and hockey facilities few operations are unable to at least cover their variable costs which he estimated at approximately $1,500 per game.[101]

Due to the wide variations in financing arrangements with respect to the long term debt incurred in constructing an arena it is extremely difficult to estimate a reasonable rental fee for a modern facility suitable for major league hockey. Many public facilities are at least partially underwritten by federal, state, provincial, or municipal governments in the form of grants or interest free loans. Consequently, the fixed costs of construction are almost impossible to estimate as a result of the fluctuations in total construction cost, interest rates, and amortization periods between facilities. Moreover, calculation of a reasonable rent for an acceptable facility is further complicated by the fact that its reasonableness is to a large extent dependent on the number of events staged in the facility.

Assuming that the proprietors of a publicly owned facility are not profit maximizers but rather seek to provide a service to the community, those public facilities that commonly utilize a large percentage of their capacity probably charge a lower rent per engagement than comparable privately owned arena's.

8. League Payments

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[101] Benjamin A. Okner, "Subsidies of Stadiums and Arenas", Government and the Sports Business, page 342. Note: this estimate was made in 1973 .

The member firms of either major league hockey cartel make annual contributions of several hundred thousand dollars each towards the administration of the league and support of the less viable clubs. The twelve W.H.A. teams made league payments of approximately $200,000 each during the 1975-76 season while the league payments of N.H.L. firms are estimated to be much higher at approximately $500,000 per annum.[102] The existence of this differential in operating costs between the two leagues is explained by two factors. First the N.H.L. incurred losses of $10,000 a day during the time that it operated the California Seals franchise.[103] For example, the N.H.L. owners chipped in $450,000 each plus an additional $200,000 apiece in court costs when they bought the franchise back from Charlie O. Finley. The league spent $11,000,000,[104] most of it not recoverable, in keeping the Seals afloat for several years. In addition to the California Seal fiasco the N.H.L. has also been forced to bear the burden of heavy litigation costs resulting from court battles with the W.H.A.. The N.H.L. was required to reimburse the W.H.A. to a tune of $1,750,000 in legal costs as part of the court settlement between the two cartels announced on February 19, 1974 besides paying their own legal fees.[105]

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[102] Personal Interview with Mr. Zane Feldman, President, the Edmonton Oilers, April 24, 1976.

[103] Charlie Halpin, "Expansion Unlikely As Denver Joins W.H.A.; Clamour for Shorter Hockey Season Grows", The Hockey News, page 2, June 1975.

[104] Bill Libby, "Bonanza By the Bay?", The Hockey News, Oct. 24, 1975, page 8.

The amount of dues paid by the firms within either league is expected to decline in future years as litigation expenses are paid off and the weaker franchises achieve financial stability. Moreover, there appears to be a growing tendency amongst major league hockey owners to allow their less viable bretheren to cease operations rather than subsidize them.[106]

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[105] "NHL, W.H.A. Finally Agree to Peace Pact", The Hockey News, March 18, 1974, page 6.
[106] Wayne Overland, "The Survival of the Fittest", The Edmonton Journal, Jan. 19, 1976, page 31.

CHAPTER III

I. - Hockey Markets

A. Geographic and Demographic Characteristics

1. Regional Appeal

Hockey, unlike the other major professional team sports on the North American continents (Baseball, Football and Basketball) suffers from an acute awareness problem in its major market area, the United Sates, where fifteen of the the eighteen N.H.L. firms and eight of the twelve W.H.A. clubs are located. Ray Volpe, former vice president of N.H.L. Services, the league's marketing arm responsible for selling the game has noted that, "two thirds of the United States has never seen a live hockey game exclusive of when it was on network T.V."[1] Since the N.H.L. has lost its national network television contract and the W.H.A. has never had one the leagues are restricted in their efforts to recruit new fans.

Due to this awareness problem geography plays a much more significant role in determining the suitability of the market than in the other major professional team sports. Not surprisingly, the most successful American major league hockey franchises have been located in regions where climatic conditions allow the formation of natural ice and the development of minor hockey programs that serve to develop familiarity with the game. Philadelphia, Minnesota, Buffalo and St. Louis were the first post 1967 N.H.L. clubs situated in the United States to utilize their full seating capacity while the New England Whalers are one of the most successsful W.H.A. firms.

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[1] Alan Richman, "How Hockey Turned a Blind Eye to T.V. Riches", The Montreal Star, Dec. 9, 1976, page C-1.

On the other hand there are indications that even cities without strong hockey backgrounds are potentially viable hockey markets. Three years prior to its acceptance into the N.H.L., the city of Atlanta had an awareness of major league hockey that was so low that N.H.L. network television games failed to register on the Nielsen scale. Yet, the Atlanta Flames drew an average of more than 11,000 persons per game during their inaugural season (1972-73), out drawing professional basketball three to two, despite the fact that the Flames missed the playoffs by eleven points.[2] However, enthusiasm for hockey in Atlanta appears to have abated, 1975-76 attendance being below 1974-75 levels by approximately 1,200 persons per game.[3]

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[2] "Hockey wins a Bigger Audience", Business Week, Jan. 6, 1973, page 22.

2. Ethnicity and Major League Hockey

The racial composition of a hockey market is extremely important as hockey's appeal is largely confined to Caucasians. Ninety-five percent of the six hundred individuals currently playing major league hockey are Canadian and only one player, Mike Marson of the Washington Capitals, is black. Consequently, people of Puerto Rican, Negro, and Mexican origin have difficulty identifying with individual players.[4] Thus the size of the non-white population in a franchise's market area can be of grave concern to the management because there is little hope of converting these people into hockey fans. For example Bill MacFarlane, at that time President and General Manager of the Phoenix Roadrunners and currently President of the W.H.A., noted in an interview with the author that one of the reasons that the Roadrunners were doing poorly at the gate was that a significant portion of Phoenix's population is of Mexican American origin.[5] The fact that the sport has little appeal with a large segment of the inner city's populace has prompted some major league hockey firms, notably Cleveland and Washington, to build their facilities in the suburbs.[6]

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[3] Tim Moriarty, "Cash Registers Singing Glum Tune for Hockey", The Montreal Star, Feb. 1, 1977, page D-1.
[4] "Hockey Wins a Bigger Audience", Business Week, Jan. 6, 1973, page 22.
[5] Personal Interview with Mr. William Mac Farlane, Feb. 16, 1976.

B. The Market - Product Relationship

The principal difficulty in evaluating the market potential of a particular region as a major league hockey franchise site is that attendance is so strongly influenced by the degree of product diffentiation achieved by the club. Product differentiation is measured on two bases the absolute and the relative.

1. Absolute Product Differentiation

Absolute product differentiation refers to the degree to which consumers accept a league as-being of superior quality to all others. Several factors including the amount of tradition or history connected with the league, the degree to which it conducts its internal affairs in a "big league" fashion, and the quantity and quality of the media coverage allotted it all significantly effect the league's absolute product differentiation.

However, a league's status as major league is ultimately determined by the quality of its player inputs. Consumers must perceive that the overall quality of play in the league is at least the equal of any other circuit before they provide it with their wholehearted support.

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[6] The Detroit Red Wings one of the N.H.L.'s oldest franchises are scheduled to move into a new arena complex in suburban Detroit prior to the 1978-79 season.

At the present time the N.H.L. enjoys a higher degree of absolute product differentiation than the W.H.A.. Unfortunately, it is difficult to translate this differential in appeal into attendance terms due to differences in market areas between the leagues as N.H.L. franchises are generally located in more heavily populated cities that have had a longer association with the game of hockey. The average N.H.L. franchise has a S.M.S.A. population of 3.4 million people compared to an average S.M.S.A. of 1 million persons for the typical W.H.A. club. Nevertheless, Noll attempted to measure differences in absolute product differentiation between the leagues midway through the W.H.A.'s inaugaral season using regression analysis. He concluded that N.H.L. membership accounts for at least 5,000 more fans per game in an average sized hockey city of 3.5 million.[7]

However, the evidence provided by the recent shifts of two N.H.L. franchises from Oakland and Kansas City to Cleveland and Denver respectively, cities previously occupied by W.H.A. teams, seems to indicate a different conclusion. Not only are the N.H.L. clubs occupying the same arenas as their W.H.A. predecessors but they are also of approximately the same quality within the N.H.L. as their W.H.A. predecessors were relative to the other clubs within their league. Thus comparison of attendance in this situation, where team quality and market area has been kept relatively constant, should provide a good measure of the difference in attractiveness between the leagues. The N.H.L.'s Cleveland Barons have averaged 5,509 spectators per game over their first fifteen 1976-77 regular season games in comparison to the 6,356 person average attendance maintained by the W.H.A.'s Cleveland Crusaders during the 1975-76 regular season.[8] The new N.H.L. entry located in Denver, the Colorado Rockies, had an average attendance of 5,484 persons per contest over its first eight home games of the 1976-77 schedule as compared to the average attendance of 4,321 people achieved by its W.H.A. predecessor, the Denver Spurs in the twenty-three regular season games played by the club during the 1975-76 season before it ceased operations.[9]

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[7] Roger G. Noll, "Attendance and Price Setting", Government and the Professional Sports Business, page 151.

Thus it would appear that the degree of absolute product differentiation between the two leagues, at least in American cities, may be substantially less than that postulated by Noll.

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[8] "Clevelands Last Hope Is Barons - Swig", Edmonton Journal, Jan. 11, 1977, page 37.
[9] "W.H.A. Showed Increase in Home Attendance", The Hockey News, August, 1976, page 27.
N.H.L., Don Ramsey, "W.H.A. Teams May Face Financial Crisis", Toronto Globe and Mail, Nov. 19, 1976, page 39.

2. Perfect vs Imperfect Hockey Markets and Relative Product Differentiation

The question of what mix with respect to the relative competitiveness of teams within a league results in the optimization of its total in-person attendance revenues is at the present time without a conclusive answer. It is possible that a league's in-person attendance revenues may be optimized if every one of its member teams is competitive with the others. Alternatively, domination by one or more extremely strong teams might result in the optimization of in-person attendance revenue at the macro level.

At the micro or team level the evidence with respect to what degree of competitiveness must be attained before in-person attendance revenues are optimized is more concrete. However, before this relationship can be examined two terms must be defined. The terms perfect and imperfect market as they are used in this study do not conform to their more widely accepted economic meanings but rather to the following definitions. A perfect major league hockey market is defined as one in which the demand for the product is so excessive that the team does not have to be competitive in order to optimize in-person attendance revenues. An imperfect major league hockey market requires that a major league hockey firm's team be competitive before the business begins to approach profit maximization.

The three largest Canadian cities Montreal, Toronto, and Vancouver and possibly New York City are the only major league hockey franchise sites that can be regarded as perfect markets.

The Vancouver Canucks have sold the 15,570 seats in Vancouver Coliseum out to season ticket subscribers since the club's inaugural season (1970-71) despite the fact that the team has never finished higher than ninth in the overall standings and posted the worst record in the league once and the third worst on two other occasions.[10] Similarly, the Toronto Maple Leafs have been in a sold out position in Maple Leaf Gardens for over twenty-five years although the club has not seriously challenged for the Stanley Cup in over a decade.[11] The Montreal Canadiens have been in a sold out position for almost as long as the Maple Leafs but perhaps with more justification as they have consistently produced a more attractive product, winning twelve Stanley Cups and recording thirteen first place finishes since the 1955-56 season.

The New York Rangers continue to fill Madison Square Garden to its 17,500 seat capacity even though they have slipped out of championship contention the last few seasons. Essentially two factors allow the Rangers to sell out with a less than superior product. First, a large percentage of their 15,700 season tickets are sold to corporations that are less reluctant to renew their subscriptions after a losing season than individual patrons because the purchase price is tax deductible.[12] Second, the sheer size of New York (9.8 million inhabitants) coupled with its familiarity with the game of hockey makes it relatively easy to fill a 17,500 seat arena forty times a year.

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[10] Beddoes, Fischler, Gitler, Hockey!, page 153.
[11] 1976-77 N.H.L. Guide, page 157-165.
Jamie Wayne, "Next Step in N.H.L.: Contraction", Financial Post, Jan. 22, 1977, page 2.

Other than in the aforementioned market areas major league hockey firms must develop a product with an extremely high degree of relative product differentiation associated with it in order to maximize in-person attendance revenues. Relative product differentiation refers to the quality of the firm's team in relation to the other squads in the league. Thus a championship contender possesses a higher degree of relative product differentiation than a team of poor or medium quality.

Major league hockey firms possessing a high degree of absolute product differentiation (i.e. N.H.L. clubs) and a low degree of relative product differentiation can expect to average at least nine thousand fans per game in their inaugural season if they are located in a good hockey market. All of the post 1967 expansion teams that eventually utilized one hundred percent of their seating capacity on a seasonal basis averaged nine thousand fans per game or better in their initial campaigns, despite the lack of talent on their squads.

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[12] Fred Rothberg, "Scalpers Working In the Front Office These Days", Chicago Tribune, December 15, 1975, page 1.

The Philadelphia Flyers, Minnesota North Stars, and St. Louis Blues all averaged over 9,000 fans per contest during the first season of post expansion play 1967-68.[13] Similarly, the Buffalo Sabres sold 4,500 season tickets prior to the commencement of their first season (1970-71) and an additional 6,000 at its conclusion even though they finished nineteen points out of the playoffs.[14] The New York Islanders were even more successful in their maiden season (1972-73), averaging over 12,000 fans per contest and selling 8,200 seats on a seasonal basis; despite the fact that they set a new N.H.L. mark for futility, collecting only thirty-one of a possible 156 points in the final standings.[15]

Although a major league hockey firm located in an imperfect market may achieve an average attendance of 9,000 persons or more per game in spite of its lack of competitiveness, it must develop a higher degree of relative product differentiation before it can become a viable business concern due to the high fixed costs of operation prevalent in the industry. In attendance terms, the break-even point for a well managed major league hockey club of average quality that exercises strict cost control is approximately 12-13,000 fans per game.[16]

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[13] "Hawk On the Wing", Time Magazine, March 1, 1968, page 43.

[14] Gerald Eskenazi, The Fastest Sport, page 158.

[15] J. Greenfield, "The Iceman Arriveth: Hockey Is the Sport of the 70's", Esquire, Oct. 1974, page 160.

Eight N.H.L. firms are currently experiencing a high demand for their product, that is they are operating at or near one hundred percent of seating capacity and charge a relatively high average price per seat. Four of these teams, the Montreal Canadiens, Vancouver Canucks, Toronto Maple Leafs, and New York Rangers are located in perfect markets while the other four clubs the Buffalo Sabres, Boston Bruins, New York Islanders, and Philadelphia Flyers are all legitimate contenders garnering 105, 113, 101 and 118 points in the 1975-76 final standings respectively.[17]

Five N.H.L. clubs utilize less than one hundred percent of their seating capacity at moderate ticket prices but still average over ten thousand fans per contest. These firms that are said to be experiencing moderate demand for their product: the Chicago Black Hawks, the Los Angeles Kings, the Pittsburgh Penguins, the Atlanta Flames, and the St. Louis Blues collected 82, 85, 82, 82 and 72 points in the standings respectively during the 1975-76 season.

The five teams with low demand for their product (under 10,000 people per game) Washington, Kansas City, Minnesota, Detroit and California were the five least competitive teams in the eighteen club circuit finishing eighteenth, seventeenth, sixteenth, fifteenth, and fourteenth respectively. Moreover, attendance problems in two of these franchises, Minnesota and Detroit, could in no way be linked to inherent weaknesses in their market since both had previously been in sold out positions. It should be further noted that these teams' announced attendances were in many cases inflated because extensive ticket discounting was practiced in at least three of these markets Washington, Kansas City, and Oakland (California).

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[16] Alan Truex, "Atlanta Businessmen Shell Out to Rescue Struggling Flames", The Hockey News, Dec. 31, 1976, page 2.
[17] 1976-77 N.H.L. Guide, page 204.

Thus it appears quite evident that with the exception of perfect markets the demand for major league hockey games is very product oriented. Furthermore, in-person attendance revenues in imperfect markets are not maximized until a championship caliber team or legitimate contender has been assembled. The St. Louis Blues had the highest average attendance per game of the clubs experiencing moderate demand drawing almost 17,000 people per contest.[18] However, the club discounted tickets liberally and as a result its net revenues from the team were only a few hundred thousand dollars above the break-even point.[19] The Chicago Black Hawks with an average attendance of 13,000 per game and the Los Angeles Kings who averaged 12,385 spectators per contest.

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[18] Donald Berns, "Blues Admit to Financial Problems but Salomons Deny Club Will Move", The Hockey News, Dec. 26, 1975, page 2.

[19] Gary Mueller, "Blues Financial Problems a Sign of the Times ", St. Louis Post Dispatch, Feb. 10, 1976, page 2B.

both finished in the black on the 1975-76 regular season.[20]

It should be noted that Chicago when it was considered to be a legitimate contender used to sell out its 17,000 seats and in addition, regularly sold several thousand standing room tickets for a large percentage of their regular season games.[21]

The fact that major league hockey clubs situated in imperfect markets must be perceived as legitimate championship contenders by their fans before they utilize their full seating capacity is further confirmed by examining at what point in time post 1967 expansion teams have achieved capacity attendances. St. Louis, the first post 1967 N.H.L. club to utilize its full seating capacity, began to do so in its second year of operation although in its nine year history it has never garnered more than eighty-seven points in the final standings. However, due largely to the playoff structure in effect at that time, with the champion of the expansion division competing in the Stanley Cup final, the Blues were in three consecutive Stanley Cup final playoff series, losing on each occasion in straight games.[22] The St. Louis fans, being relatively new to the game and less sophisticated than some of their counterparts in other centers, probably didn't realize that the Blues were not true contenders.

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[20] Don Ramsey, "N.H.L., W.H.A. Teams May Face Financial Crisis", Toronto Globe and Mail, Nov. 19, 1976, page 39. Bill Libby, The Hockey News, May 21, 1976, page 13.

[21] Richard Proctor, "Pro Rivals Should Unite Hull Says", Toronto Globe and Mail, Nov. 15, 1976, page 57.

[22] Gerald Eskenazi, The Fastest Sport, page 153.

The Minnesota North Stars were the next post 1967 club to utilize full seating capacity. Blessed with an aware and knowledgeable hockey market, Minnesota having the strongest minor hockey program in the United States, the club drew an average of 11,837, 12,973 and 14,289 fans per game its first three seasons.[23] But it was not until after the 1970-71 Stanley Cup playoff series with Montreal in which the North Stars extended the eventual Stanley Cup champions to six games that the club utilized its full 15,000 seat plus seating capacity on a seasonal basis.[24]

The Buffalo Sabres also established themselves as legitimate contenders in their third N.H.L. season by extending Montreal to six games during the 1972-73 playoffs. The Sabres were in fact actually in a sold out position since their initial season; however, their arena, the Memorial Auditorium only had a capacity of a slightly over 10,000 seats at that time, but was expanded enough to hold 15,534 people by the 1972-73 season.[25]

The Philadelphia Flyers also enjoyed excellent attendance even under adverse conditions. For instance they averaged 13,157 people per game during the 1969-70 season although they missed the playoffs.[26] However, the club did not achieve a high demand situation until the 1972-73 season when it garnered eighty-five points in the standings and established itself as the up and coming team within the league. In fact demand for tickets to Flyer games was so excessive by the end of the 1972-73 season that their arena, the Spectrum, was expanded by 400 seats before the 1973-74 season, raising seating capacity to over 17,000 people per game.[27]

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[23] Ken Mckenzie, "Passing the Puck", The Hockey News, April 10, 1970, page 4, and April 24, 1970, page 4.
[24] Beddoes, Fischler, Gitler, Hockey!, page 110.
[25] Beddoes, Fischler, Gitler, Hockey!, page 150.

The New York Islanders, the only other post 1967 N.H.L. team located an imperfect market to utilize full capacity, experienced a similar attendance pattern. Over their first three seasons the Islanders sold approximately 8,000 season tickets per year and averaged approximately 12,000 fans per game. Then during the 1974-75 playoff they beat their arch-rivals, the New York Rangers, in a playoff series and proceeded to extend the eventual Stanley Cup champions, the Philadelphia Flyers, to seven games in their other playoff series. Season ticket sales skyrocketed, with two to three hundred season tickets being sold every day until 11,500 of the Nassau County Coliseum's 14,865 seets were held by season ticket subscribers.[28]

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[26] The tight playoff race may have actually served to boost attendance.
[27] *1972-73 N.H.L. Guide*, page 17.
1973-74 N.H.L. Guide, page 17.
[28] Harry Klaff, "Islanders Success Reflects in Box Office Boom", *The Hockey News*, July 1975, page 19.

The Coliseum was sold out for the 1975-76 season despite the fact that the Islander management was restricted by a clause in their lease agreement to selling only 11,500 seats on a seasonal basis.

II. - Product Description - Legitimate Contenders

Even cursory examination of major league hockey attendance in imperfect markets reveals that firms do not utilize full seating capacity in conjunction with high ticket prices until their hockey team is perceived by the consumers as being competitive with the league's best squads. Since profit maximization does not occur with less than capacity attendances due to the high fixed cost nature of the industry, any study concerned with the achievement of long run profit maximization within the industry is incomplete unless it examines how championship caliber teams are assembled and maintained on a long run basis.

That it is possible to maintain legitimate contender status over an extended period of time is patently obvious from the history of the N.H.L.. Over the last twenty-eight N.H.L. seasons the Montreal Canadiens have missed the playoffs only once, competed in eighteen Stanley Cup finals, winning thirteen, finished first on thirteen occasions and second in eight other compaigns and have collected ninety-five or more points in the final standings the last six consecutive years. Similarly, in the ten seasons between

1946-47 and 1956-57 the Detroit Red Wings finished first eight times and second twice, participated in seven Stanley Cup finals and won four. Furthermore, the Toronto Maple Leafs won four Stanley Cups in six years starting during the 1961-62 campaign. More recently, the Boston Bruins have accumulated 94 or more points in the final standings for the last seven consecutive seasons and have been in the Stanley Cup final on three occasions over this period of time.[29]

A clearer definition of the end itself is necessitated before it is possible to systematically evaluate the alternative building strategies open to hockey firms attempting to assemble championship caliber squads. Only after the most important characteristics of legitimate contender status have been delineated can the alternative means of achieving this end be analyzed with respect to their efficiency, effectiveness and ease of implementation.

A team's overall superiority to the vast majority of other clubs within its league denotes it as a legitimate contender. A legitimate contender is regarded as being a member of the select group of clubs that are perceived as possessing enough talent to seriously challenge for the championship. In any given year there is usually a substantial differential of ten to twenty points in the year end standings between the best mediocre team and the worst legitimate contender.

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[29] 1976-77 N.H.L. Guide, page 157-161.

Methodology

The analysis of legitimate contender characteristics was restricted to N.H.L. teams for several reasons. First, N.H.L. teams set the standard of excellence because they are considered by most experts to possess superior player inputs and W.H.A. clubs will begin to more closely approach these standards as they acquire better player inputs. Second, information on N.H.L. clubs was more readily accessible. Third, the author had a greater familiarity with N.H.L. teams as a result of the Hockey Night in Canada television broadcasts. Fourth, the lower quality of competition in the W.H.A. in its formative years probably inflated the goal and assist production of some athletes making them incomparable with their previous N.H.L. production.

A two step methodology was utilized in delineating the characteristics associated with legitimate contenders. First, the N.H.L. final standings since the 1971-72 season were observed and the number of points garnered, goals scored, goals scored against, penalty minutes accumulated and home and away records, as well as the efficiency of specialty units such as the powerplay and penalty killing teams of the legitimate contenders were noted and compared to their less successful counterparts. This relatively short time period of five years was used in order to avoid some of the distortion caused by the fact that the post 1967 clubs required time to acquire talent, especially goal scoring talent, from the amateur feeder system because the players they received in the expansion drafts were of lower quality.

Second, the legitimate contenders during the 1975-76 season Boston, Montreal, Buffalo, Philadelphia and the New York Islanders, were closely examined with respect to the productivity of their player inputs. Scoring productivity was measured by calculating a mean yearly goal and assist output for every forward and defenceman on these clubs. A three year basis was used where a player had been an N.H.L. regular for three or more years. If an individual had been injured after having played a considerable portion of the year his scoring output was extrapolated over the games that he missed, then added to his two previous years totals and divided by three. The scoring statistics for individuals completing their second years as N.H.L. regulars were treated somewhat differently. If an individual had a poor first season and a good sophomore season the latter was regarded as his proper scoring level, while the seasons were averaged if both were good or the first good and the second poor. The purpose behind utilizing this approach was to develop a better picture of each player's scoring capabilities by correcting for the effects of slumps or exceptional years. A poor first year was ignored if it was followed by a solid second campaign because many players often have difficulty in adjusting to professional hockey in their initial season as a regular. On the other hand, a fine rookie year followed by a dismal sophomore season or two consecutive good seasons were averaged in order to be conservative.

Although it is comparatively easy to evaluate hockey players offensive abilities with their scoring statistics no comparable defensive statistics exist. Consequently defensive ratings of necessity must be extremely subjective in nature, being developed from personal observation of the individuals on television broadcasts, journalistic accounts of their play, the opinion of people involved in the industry such as scouts and general managers, and examination of the plus minus statistics released by the league.

The plus minus statistic is widely used as an indicator of defensive performance. A player is awarded a plus for every time his squad scores while he is on the ice in an even handed situation and a minus when the opposition scores. Power play and penalty killing situations are excluded when plus minus statistics are compiled because they would distort the ratings of individuals either operating the powerplay or killing penalties on a regular basis. Unfortunately, the plus minus statistic can be deceptive in that it is strongly effected by the overall quality of the team. For example, Reggie Leach was -61 during the 1973-74 season when he played for the lowly California Golden Seals but +53 in 1974-75 after he was traded to the Stanley Cup champion Philadelphia Flyers. Thus plus minus statistics must be approached with a wary eye, it generally being more useful to look for discrepancies on the same team and then strive to explain them. For instance Jim Roberts a Montreal Candiens right winger had a +7 rating during the 1975-76 season, significantly lower than the other wingers on the Canadien's roster. However, Roberts is a defensive specialist and is usually assigned to guard the oppositions top left wing. Nevertheless, his lower plus rating is not completely explainable by this fact alone as his two linemates Bob Gainey and Doug Jarvis had plus minus ratings of +20 and +17 respectively.[30]

A. Points Totals

Clubs receive two points in the standings for each victory, one point per tie, and no points for a loss. In order to qualify as a legitimate contender a club must normally collect one hundred or more points over the course of the eighty game regular season, a winning percentage of .625 or better. The record for the greatest number of points accumulated over an eighty game schedule is 127 set by the Montreal Candiens in 1975-76, a winning percentage of .793.

1. Home Games

Only the very worst major league hockey teams fail to win a large number of their home games. For example twelve of the eighteen N.H.L. teams collected the fifty or more points at home during the 1974-75 season which is the minimal standard for home success required of a legitmate contender. Although sixty or more points (a winning percentage of .750) at home is considered excellent some teams are even more dominant on home ice. The Philadelphia Flyers for instance maintained a winning percentage of .925 when they accumulated 74 out of a possible eighty points at home during the 1975-76 season.

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[30] "N.H.L.'s Plus Minus Statistics for 1975-76 Season", The Hockey News, Aug. 1976, page 29.

2. Road Games

Due to the fact that most teams are able to win a large percentage of their home games road performance is the crucial factor in separating the championship caliber squads from the also rans. Only three or four teams a year garner the forty or more points on the road regarded by most coaches as the minimal standard of road performance for a team with championship aspirations. The more firmly entrenched legitimate contenders are able to accumulate fifty points on the road with the Montreal Canadiens setting the record for road points collected in a season with fifty-eight in 1975-76.

B. Defensive Record

The factor that more than any other determines whether or not a club accumulates enough points to become legtimized as a championship contender is its defensive record. The last four consecutive Stanley Cup winners also won the Vezina Trophy, emblamatic of the league's best defensive record, in the year of their Stanley Cup victory. Moreover, in any given year, the four or five squads perceived by the fans as being of championship caliber are invariably amongst the league's top six defensive teams, allowing between two and three goals per game. In general a goals against average of two per game is considered excellent, two and a half good, and three in need of improvement if the club wishes to preserve its legitimate contender status.

1. Determinants of Defensive Proficiency

Although each position on a hockey team makes a significant contribution towards the team's total defensive record it is difficult to quantify and attribute a particular position whether it be forward, defence, or goalie with making the greatest contribution towards an outstanding defensive record. Cohesion and cooperation between the units is essential in order to keep the goals against down.

Forwards must be careful not to over commit themselves in the offensive zone and allow the opposition three on two, two on two, and two on one breaks. In addition to backchecking diligently the forwards can also assist the goaltender and defensemen by breaking up opposition plays in the offensive zone through tenacious forechecking. Moreover, when forwards are consistently able to mount a sustained offense, penetrating the offensive zone and controlling the puck, they make a substantial contribution to team defence because the other squad cannot score if it does not have the puck. Although relatively few forwards on contending teams are poor defensive players some are better than others. Coaches often prefer to allow the more accomplished scorers to emphasize offense and have the more defensive oriented members of the squad concentrate on defense.

The defencemens' contribution to defence is essentially three fold in nature. First, they should be able to handle forwards one on one and break up any offensive plays that do develop. Second, they must be able to consistently move the puck out of their defensive zone without making any crucial defensive errors. Finally, opposition forwards cannot be allowed to move freely in front of the net in the defensive zone. Legitimate contenders generally employ at least four extremely capable defencemen plus one or two others of more than average ability. The goaltender's primary responsibility quite obviously is to stop the puck. The goal keeper must make every goal scored on him a hard earned one, allowing few of the "soft" variety. To this end he is aided and abetted by the forwards and defense in front of him. Since a club's number one goaltender rarely plays more than sixty of the eighty regular season games his backup has to also be a capable individual.

C. Goal Scoring

Examination of legitimate contenders' goal scoring capabilities over the last five seasons reveals that the average contender scores approximately four goals per contest or 320 goals over an eighty game schedule. Some teams have been able to garner enough points to be rated as legitimate contenders even though they were only able to score 280 goals; but these squads were superb defensively allowing slightly over two goals per game. The higher scoring legitimate contenders accumulate approximately 350 goals per season (an average of 4.375 goals per game) with the record for the greatest number of goals scored in a single season being 399 (set in a 78 game schedule). In comparison the average N.H.L. team scores between 255 to 275 goals per season.

The crucial difference in the scoring capabilities of legitimate contenders as compared to the also rans is that the former have an overall breadth and depth of scoring ability that is lacking in the latter. Every legitimate contender has a minimum of seven individuals who average over twenty goals or forty-five or more points per year. Four of these seven consistently accumulate thirty or more goals or sixty-five or more points. Moreover, at least two of the athletes in the former higher scoring category generally average over eighty points or forty goals per season. In contrast, mediocre clubs by and large have but five or six twenty or more goal scorers, only one or two of whom regularly score thirty goals or more a season.

The goal scoring on a legitimate contender is unevenly distributed amongst the first, second and third lines with the first line consistently scoring at least 90 and usually over 110 goals, the second line contributing between eighty and ninety goals and the third line forty-five to fifty-five goals. The spare forwards or fourth line also chip in 30 to 40 goals while the defence normally scores approximately 35 goals. Some defences, notably the Montreal Canadien's unit, consistently score fifty of the club's goals.

Besides their goal scoring output a sound defence makes another substantial contribution to their team's offensive performance by coming out of their own zone smoothly and relaying the puck quickly to their forwards, thereby allowing the latter to concentrate more fully on offense.

D. Miscelleneous Relationships

1. Power Play Efficiency

Power play efficiency correlates strongly with legitimate contender status. Legitimate contenders almost invariably occupy four out of the first five positions in the power play efficiency rankings and score a significant number of their goals with the man advantage. For example 92 of the 374 goals scored by the Montreal Canadiens during the 1974-75 season were earned while enjoying a manpower advantage.

2. Penalty Killing

The relationship between penalty killing efficiency and legitimate contender status is less strong than the one between power play efficiency and contender status but is still positive. Legitimate contenders generally finish amongst the top half of the league's teams with regards to penalty killing, but it is not uncommon for at least one legitimate contender to be in the lower half.

3. Penalty Minutes

No clearly visable relationship appears to exist between the number of penalty minutes accruing to N.H.L. teams and their position in the final standings. Championship caliber teams are found at both the bottom (Montreal, Chicago, New York Rangers) and the top (Philadelphia Flyers, Boston Bruins) of the penalty minute rankings.

III - Product Development

A. Player Acquisition Techniques

Essentially only four player acquisition techniques are open to major league hockey managements when they attempt to strengthen their club's position in the standings: trading, the exchange of player inputs between firms; raiding, the signing of a player after his contractural obligations to his present employer are fulfilled; buying, the purchase of player inputs from one team by another and lastly; drafting, the acquisition of negotiation rights to eligible players in the amateur feeder system through the annual universal amateur drafts. The costs and benefits associated with each of these techniques will now be discussed with regards to the development and maintenance of the legitimate contender caliber team required to maximize profits in the long run.

1. Trading

The primary advantage of trading for veteran professional players is that uncertainty over their productivity is reduced because they are known commodities. In addition, acquisition of veterans is considered by many experts to assist in improving a club's defensive record as more experienced players reputedly commit fewer defensive errors. Moreover, the presence of veterans is said to accelerate the development of the younger players because they learn more quickly as a result of instruction from and observation of their more experienced colleagues. A further advantage of trading for established veterans is that few resources need to be allocated towards the scouting and development of talent as the player inputs acquired are mature, known commodities.

There are however, limitations to the effectiveness of the trade mechanism as the primary technique used to develop and maintain a legitimate contender in the long run. Normally, before an exchange of player inputs is agreed to the participating clubs are satisfied that the commodities being exchanged are of equal value otherwise the transaction is never consummated. Consequently, the only way that one team can improve itself more than marginally at the expense of another in a trade is if the player inputs it acquires are undervalued at the time of the transaction. Although there are numerous reasons why a player will be undervalued the four most common are that: he is either young and unproven, is regarded as a discipline problem, has not been provided with an adequate opportunity to display his talents or has been overshadowed by his team mates.

Thus, assuming that the managers on both clubs are possessed of equal trading acumen, it becomes obvious that only by reintroducing uncertainty into the transaction by dealing for unknown quantities rather than established professionals can one club more than marginally improve itself via the trade route. Nor is the firm receiving known for unknown quantities likely to improve itself enough to achieve legitimate contender status as the inputs it acquires will generally not allow it to attain championship status because unknown quantities have a low market value. Thus, organizations such as the Los Angeles Kings, Minnesota North Stars, and St. Louis Blues which have consistently traded their top draft choices for veteran players have failed to obtain anything more than mediocrity with respect to the final standings.

Furthermore, clubs at the very bottom or top of the standings are restricted in their trading activities. The former because they have little in the nature of surplus talent to exchange and the latter because any individual that they trade for must be exceptionally talented in order to significantly improve team performance.

2. Raiding

Since the compensation rules enforced by both the N.H.L. and W.H.A. discourage intra league raids by requiring that the raiding team provide the player's former employer with compensation in the form of players, draft choices, or cash equivalent to his value most raids are conducted against firms in the rival cartel.

Like trading for a proven veteran it is generally unnecessary for a raiding team to spend any money further refining a raided player's skills and there is little uncertainty about his capabilities. Raiding, however has a major advantage over trading as an acquisition technique in that outstanding players can be acquired through its utilization without giving up other players in exchange providing that the raider owns the athlete's negotiation rights.

Unfortunately, raiding as a long run building mechanism has several major drawbacks associated with it. First, raiding tends to be expensive because not only is the player in an extremely strong bargaining position, and often able to command a substantial increase in salary, but any raise that he receives is likely to have an inflationary effect on his new team mates' salary expectations. Second, due to the fact that for both psychological and monetary reasons athletes are often reluctant to relocate, all other things being equal, the player's present employer often enjoys a considerable competitive bargaining advantage. Thus substantial additional incentives must often be offered to the athlete by the raider to induce him to jump teams and leagues. Third, since renegotiation of contracts prior to their expiration and the signing of multi year pacts are common business practices within the industry, relatively few top line hockey players become available in any given year. Finally, even if an individual is a free agent the raider must be in possession of that athlete's negotiation rights before it can discuss contract without fear of incurring severe negative sanctions from the league.

3. Buying Player Inputs

Although, the outright sale of top quality players by one team to another is an extremely rare event it does occasionally occur. Large losses on the part of the selling team usually precipitate this type of transaction as it is an attempt to reduce operating costs through the reduction of overhead. For example the W.H.A.'s Phoenix Roadrunners disposed of two of their better young players Cam Connor and Barry Dean, both of whom command six figure salaries, prior to the commencement of the 1976-77 season in an effort to reduce their losses to a more acceptable level.[31] Top players are also sometimes exchanged for other athletes of unquestionably inferior quality when management decides that a star player's salary is too inflated. For example Vic Hadfield a former second team all star left wing with a $175,000 salary was traded to the Pittsburgh Penguins before the 1974-75 season for Nick Beverly a journeyman defenceman. Similarly, after experiencing a decline in both competitiveness and attendance during the 1974-75 season the Minnesota North Stars unloaded several of their best players, Barry Gibbs, Fred Stanfield, Jude Drouin, and Jean

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[31] Doug McConnel, "Phoenix Drops Ice Stars to Keep Hockey Alive", The Hockey News, Oct 29, 1976, page 27.

Paul Parise for several journeyman caliber athletes.

However, the practice of reducing overhead through payroll cuts is often a false economy when it adversely effects a team's "on ice" competitiveness as the attendance decline with its accompanying drop in in-person attendance revenues is likely to overshadow any benefits accruing from tighter cost control. For example, when Minnesota substantially reduced its payroll by unloading Gibbs, Stanfield, Drouin and Parise during the 1974-75 season it also experienced a significant decline in competitiveness. The team accumulated 85 points in the standings in 1973-74 and played to capacity crowds of 15,000 fans per game, but garnered only 63 points and experienced an average attendance of 13,587 in 1974-75 and slipped even further in 1975-76 to 47 points and 9,661 fans per game.[32] The practice of selling players or reducing the payroll through the trading of high salaried athletes for less well paid individuals is more prevalent in the W.H.A. than in the N.H.L. largely because more W.H.A. clubs operate in suspect markets. These firms feel that they must reduce their overhead to the bare minimum in order to remain viable. However, in effect they are probably only delaying their demise, for few owners are so well financed that they are able to absorb several hundred thousand dollars in losses each year.

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[32] Pat Thompson, The Hockey News, April 23, 1976, page 23.

4. The Universal Amateur Draft

Due to the inherent limitations of the previously mentioned player acquisition techniques, the Universal Amateur Draft has become the primary source of quality player inputs.

The Universal Amateur Draft began in 1963 as the device used to allocate the negotiation rights to the amateur hockey players not on sponsorship lists. However, after the decision to eliminate the sponsorship system was made the amateur draft of overage juniors became the primary means by which the negotiation rights to professional prospects within the amateur feeder system were allocated amongst N.H.L. firms. The sponsorship system officially ceased to exist after the 1965-66 season; however, since players already on sponsorship lists were not eligible for the amateur draft it continued to effect the availability of talent until all of the athletes on the lists were phased into the system. The 1969 universal amateur draft was the first one completely unaffected by sponsorship, any person reaching twenty years of age in the calendar year of the draft being eligible for it.[33]

When the W.H.A. came into existence it engaged the N.H.L. in a bitter struggle for player talent and successfully raided the established league for several of its top stars notably, Gerry Cheevers, Bobby Hull, Bernie

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[33] 1976-77 N.H.L. Guide, page 259.

Parent and J.C. Tremblay. However, the supply of available talent from this source soon dried up as N.H.L. teams signed their players to multi year contracts. Cut off from this source of talent and realizing that they needed to acquire better personnel in order to successfully differentiate their product the W.H.A. firms attempted to sign overage juniors, holding their first full scale amateur draft in 1973. Unfortunately for the W.H.A. owners, the player agents representing graduating juniors preferred to sign their clients with the N.H.L. because of the greater financial security afforded by the older circuit. As Alan Eagleson perhaps the most prominent hockey agent put it, "I've told the players not to sign anything until they get the money in advance. Hell, the N.H.L. has good credit and always pays its bills. We all know that. But we don't know about the W.H.A.".[34] Of the ninety athletes chosen in the first round of the five N.H.L. drafts between 1972 and 1976 only five signed with W.H.A. teams.

Desperate for fresh talent and unable to compete with their more well heeled N.H.L. counterparts for graduating juniors W.H.A. firms began to sign juniors prior to the expiration of their junior eligibility. During the spring and summer of 1973 W.H.A. teams signed six of the best underage juniors available. Tom Edur, Wayne Dillon, and Mark and Marty Howe all from the Toronto Malboroughs signed with and played for W.H.A. clubs during the 1973-74 season. Meanwhile, both Jacques Locas of the Quebec Remperts and Dennis Sobchuk of the Regina Pats inked multi year pacts with the Cincinnati Stingers but completed their last year of junior eligibility before becoming professionals.[35] All of these players almost certainly would have been selected in the first round of the N.H.L. draft if they had completed their eligibility and were available.

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[34] Mark Mulvoy, "See The Pucklings Waffle In", Sports Illustrated, Feb. 28, 1972, page 20.

Faced with the prospect of the rival league signing the top professional prospects before they became eligible for the N.H.L. draft, the N.H.L. permitted its membership to select a limited number of underage juniors in the 1974 draft. Teams were allowed to chose one underage player each providing that he was selected within the first two rounds of the draft.[36] Fourteen underage juniors were chosen including Mark Howe who was already playing with the W.H.A.'s Houston Aeros. Of the remaining thirteen players, twelve signed with the N.H.L. and played with either the major league club or its minor league affiliate in 1974-75, while the other individual, Bryan Trottier, returned to junior and played an additional season.

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[35] Chris Zelkovich, "W.H.A.'s Signings of Juniors Forces N.H.L. into Bidding War", The Hockey News, Sept. 1973, page 2.
[36] Frank Orr, "Top Amateur Prospects Picked Clean by Pro's - Whats Left for Junior Hockey", The Hockey News, Dec. 27, 1974, page 3.

The W.H.A., seizing an opportunity to establish a competitive advantage with respect to recruiting, also drafted underage players in 1974 but of the twelve underage players selected by them only two were also selected in the N.H.L. draft. Consequently, the W.H.A. clubs were in a position to offer the ten individuals who were not selected by the N.H.L. an opportunity to turn professional early without having to outbid N.H.L. firms for their services. Five of these twelve players accepted the offers and signed with W.H.A. firms.

IV Analysis of The Player Market

Formulation of player acquisition policies and strategies that would allow a firm to achieve the ultimate goal of being able to assemble and maintain a championship caliber team in the long run necessitates a thorough understanding of the player market in all its complexities. Specifically, five types of information are required in order to develop and implement sound, rational strategies.

First, the amateur feeder systems had to be evaluated with respect to the quality and quantity of their inputs in order to ensure an optimal allocation of the firm's monetary and human resources. Management must know which amateur leagues produce the best professional prospects in each position if they are to both make adjustments in their scouting systems in accordance with their player personnel requirements and avoid misallocating company resources towards unproductive feeder systems.

Second, the relationship between the quality of player inputs and their draft selection number was probed to determine how difficult it is to predict professional success. If professional performance is relatively unrelated to characteristics discernable when the player is an amateur then management will be hard pressed to formulate an effective long run player acquisition policy.

Third, the length of the adjustment period required before athletes entering professional hockey from the amateur feeder systems normally make a significant contribution towards team success was measured. This information has relevence in relation to the player development and personnel turnover policies adopted by a major league hockey firms' top management.

Fourth, indicators of future professional performance both in the positive and negative sense were probed in an attempt to isolate factors that might serve to assist in further rationalizing drafting procedures.

Fifth, drafting efficiency was examined on a micro (team) and a macro (league) basis with the purpose of developing standards that could be utilized by management in evaluating their own performance. Without such a yardstick management would lack the guidelines needed to make vital adjustments and improvements within the player evaluation function of their operation when they become necessary.

Methodology

The first step in developing a methodology that would permit analysis of the player market involved deciding whether the N.H.L. or W.H.A. draft was to be utilized as an estimate of the players' professional potential prior to their entrance into professional hockey. This issue was quickly resolved in favor of the former as several factors precluded the use of the latter. First, because the W.H.A. draft has only been in existence since 1973 and two years of lag time is usually required before a large percentage of the individuals selected in any particular draft begin to achieve their level of professional competence it has not been in operation long enough to provide a solid basis for longitudinal analysis. Second, due to the fact that they experience more difficulty in signing their draftees than their N.H.L. counterparts W.H.A. clubs have a tendency to select more on the basis of availability than ability, seeking to achieve a competitive advantage with respect to recruiting. For example, the New England Whalers selected Glen Goldup second in the entire draft in 1973 even though most scouts did not rate him nearly that high because he had also been chosen by the powerhouse Montreal Canadiens in the N.H.L. draft. The New England management hoped that Goldup would sign with them rather than Montreal to avoid the minor league apprenticeship probably required before he could play for the Canadien's major league team. Third, N.H.L. clubs as a rule allocate more resources towards the scouting function and as a result probably achieve a more accurate appraisal of an individual's major league potential.

The rating system utilized in classifying players according to their athletic prowess was crucial to the entire analysis. Too broad a rating system, classifying virtually all players into the same group such as "all major league hockey players competing in ten or more major league games in 1975-76" would do little to facilitate analysis because it would not differentiate sufficiently between the relative merits of individual players. On the other hand an extremely narrow rating system which attempted to grade, rank and assign a numerical classification for each individual athlete would be too subjective. The rating system utilized in this analysis attempted to overcome this problem by classifying the players into broad but differentiated groups.

All players born between 1949 and 1954 inclusive were ranked in their particular position according to their professional performance and were then divided into categories on a five point scale. Players in the I classification were top quality players amongst the best at their position. The II category denoted an extremely competent, capable performer not quite of I stature while III's were marginal players in constant danger o generally employ a limited number of III's who occupy spots on the third or fourth line, kill penalties or are the fifth or sixth defenceman. IV's and V's are both inadequate hockey players, that is unable to earn a full time spot on a legitimate contender's roster with the primary distinction between the two being that V's generally are older and possess less potential. Some of the younger II's, III's, and IV's who have not yet firmly established their level of competence may be upwardly mobile in that they could possibly move up into a higher classification. I's and V'S by definition lack such mobility.

It must be emphasized that this classification system does not attempt to compare the relative merits of individual players but rather merely seeks to place hockey players into relatively broad groups according to their ability. Consequently, it avoids a large portion of the subjectivity that surrounds any endeavour of this nature. For example, of the right wings entering professional hockey since 1969 five standout from the rest: Guy Lafleur, Reg Leach, Dan Gare, Lanny MacDonald, and Anders Hedberg. Although it may be debatable which of these gentlemen is the finest right wing in professional hockey there is little doubt that he is included in this group.

Several different sources of information were utilized in ranking and classifying the players. First, the player's scoring production over his professional career was reviewed. The evaluation of forwards was especially heavily weighted towards their scoring ability while it was not emphasized as much when categorizing defencemen. Second, the plus minus statistics released by the leagues at the conclusion of each season were scrutinized for indications that an individual was a particularly competent or inept defensive player. Mitigating factors such as the relative strength or weakness of his team and the player's role on the squad were taken into consideration in this portion of the analysis.

Effect of Underage Draft and Early Signings on Player Market Analysis

The signing of junior players prior to the draft and the drafting of underage juniors have served to complicate attempts to analyze the player market using the N.H.L. amateur draft as a basis. The former practice tends to lower a player's draft selection number by reducing his availability. For example after Dennis Sobchuk and Jacques Locas signed with the W.H.A. prior to the 1974 N.H.L. draft their value declined in the eyes of N.H.L. managers because they would not be available for several years. Consequently, although Sobchuk was perhaps the best twenty year old prospect available in the 1974 draft and Locas was certainly rated in the top ten the former was chosen 89th and the latter 188th.[37]

Underage drafts distort the number of top quality hockey players entering the professional ranks in both the year of the underage draft as well as the next few years because the cream of several draft years is in effect being skimmed in one. For instance, the 1974 draft will appear on the surface to be an especially bountiful one due to the fact that fourteen underage players who would have been the top prospects in the 1975 and 1976 drafts were taken one or two years early.

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[37] 1974-75 N.H.L. Guide, pages 207, 208.

Similarly, because most of them were harvested early the latter two drafts will appear to possess fewer quality professionals than normal.

The drafting efficiency of teams was studied by evaluating the quantity and quality of the personnel chosen by a firm in relation to how many choices it had, and where they were situated. Obviously, the assessement of drafting efficiency is greatly complicated by early signings and underage drafts. The former effects a team's efficiency rating because it is often able to acquire an athlete later than he would normally be available as was the case with Dennis Sobchuk, Jacques Locas and numerous others.

The availability of underage juniors can affect a club's efficiency rating in two ways. First, because the quantity of quality players greatly increases during underage drafts a team has a better chance to draft well. Second, by drafting a player several years prior to his normal draft year on his potential a club increases the uncertainty surrounding its choice but in all likelihood also improves its chances of a high payoff. For instance, the New York Islanders chose Bryan Trottier twenty second overall in the 1974 draft, two years before his normal draft year. Trottier won the 1975-76 Calder Trophy emblamatic of the N.H.L.'s top rookie and set a new points record for rookies at the same time. If he had not been drafted until 1976 he would have almost undoubtedly been amongst the top five players selected. Conversely, the Washington Capitals selected Mike Marson 19th over all in the 1974 draft when he was only eighteen years of age. Marson has scored twenty goals and recorded nineteen assists in one hundred and thirty-three regular season N.H.L. contests and is currently not on the Capitals major league roster although they are considered to be one of the worst teams in major league hockey.[38]

The effects of underage and early signings were corrected for by excluding all of these players from the analysis and shifting the draft selection numbers of the other players upwards accordingly. Thus underage players such as Pierre Larouche and Bryan Trottier were treated as if they were not drafted in 1974. Similarly, teams such as Boston and Montreal that drafted individuals who were W.H.A. veterans having signed early with the rival league were not given credit for these choices.[39] In the case of both underage draftees and early signings the draft choice was counted neither for nor against a team in evaluating the efficiency of its drafting.

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[38] 1976-77 N.H.L. Guide, Marson, page 456, Trottier, page 563.

[39] Montreal drafted Marty Howe, Boston selected Mark Howe, 1974-75 N.H.L. Guide, page 206.

Table I

RATING SYSTEM

I Caliber Players

Defence	Centre
L. Robinson	D. Sittler
D. Potvin	R. Macleish
J. Watson	R. Clarke
B. Salming	G. Perrault
	M. Dionne
	T. Lysiak
	D. Sobchuk
	U. Nilsson
	P. McNabb

II Caliber Players

M. Howe	D. Riseborough
J. Guevermont	G. Kirk
G. Lariviere	V. Merrick
D. O'Brien	P. Sullivan
R. Redmond	I. Boldriev
L. Goodenough	R. Goring
R. Stackhouse	O. Kindrachuk
A. Dupont	S. Weir
T. Edur	T. Ruskowski
J. Hughes	M. Rogers
I. Turnbull	C. Oddleifson
R. Dailey	J. Locas
D. Tallon	G. MacGregor
J. Schoenfeld	R. Leduc
H. Snepsts	R. Ftorek
D. Lewis	J. Noris
P. Russell	A. Savard
T. Bladon	R. Chipperfield
D. Maggs	
D. Hoganson	
K. Morrison	
W. Nyrop	
G. Sargent	

Table I (Continued)

III Caliber Players

Defence	Centre
R. Stewart	D. Gibson
S. Durbano	D. Gardner
B. Neely	G. Ferguson
C. Campbell	D. Tannahill
D. Hutchinson	W. Clement
R. Plumb	N. Pyatt
R. Chartraw	P. Marrin
N. Komadowski	R. Thomas
R. Greschner	R. Bourne
L. Frig	
A. St. Laurent	
L. Sacharuk	C. St. Sauver
G. Irwin	V. Venasky
R. Gassoff	L. Powis
D. Bialowas	L. Patey
M. Ford	R. Erickson
S. Beaudoin	
R. Wilson	
A. Hangsleben	
B. Affleck	
W. Butters	
J. Van Boxmeer	
P. Rautakellio	
L. Carriere	

Table I (Continued)

	I Caliber Players	
RW	LW	Goal
L. MacDonald	R. Martin	
D. Gare	S. Shutt	
R. Leach	R. Barber	
G. Lafleur	D. Lever	
A. Hedberg	M. Tardif	
	C. Gillies	
	S. Vickers	
	R. Gainey	
	E. Thompson	
	II Caliber Players	
W. Harris	P. Guite	J. Rutherford
R. Middleton	R. Houle	D. Bouchard
M. Murphy	T. Williams	G. Gilbert
T. O'Reilly	R. MacMillan	J. Garret
R. Kehoe	E. Vail	M. Laroque
C. Connor	D. Williams	W. Smith
P. Hughes	G. Howatt	D. Herron
R. Nystrom	D. Rota	M. Palmateer
M. Bergeron	Y. Lambert	G. Meloche
D. Talafous	A. MacAdam	
R. Preston	W. Lindstrom	
B. Stoughton	D. Labratten	
D. Saleski	C. Lefley	
D. Ververgaert	M. Wilson	
	C. Ramsey	
	D. Maloney	

Table I (Continued)

III Caliber Players

RW	LW	Goal
J. Jacques	R. Sedlebaur	G. Gratton
F. Harvey	P. Jarry	R. Brodeur
G. Goldup	J. French	M. Dion
J. Butler	P. Hickey	D. Ellenbaas
H. Monahan	H. Nowak	C. Ridley
T. Simpson	D. Schultz	R. Low
J. O'Flaherety	R. Kelly	J. Davidson
D. Kozak	K. Devine	P. Lopresti
C. Arnason	R. Climie	
A. McDonough	A. White	
E. Patenaude	G. Lyle	
D. Polonich	W. Bianchin	
B. McDonald	K. Baird	
P. Boutette	B. Spencer	
R. Murdoch	E. Deadmarsh	
H. Graves		
P. Plante		
W. Miller		

A. Sources of Talent

1. Defence

The O.H.A. is by far the dominant feeder system with respect to the production of I and II caliber defencemen. Two of the four I caliber defencemen and fourteen of the twenty-four II type defencemen entering professional hockey since 1969 played their amateur hockey on O.H.A. clubs. The W.C.H.L. circuit is a poor second to the O.H.A. in the production of first rate defencemen developing one of I caliber and seven of II stature, but is relatively equal with regards to III's having developed nine to the O.H.A.'s seven. If the W.C.H.L. is relatively less fertile than the O.H.A. with respect to the development of top professional defencemen, the Quebec Junior league is absolutely barren. The Quebec circuit has not produced a single I caliber defenceman, only one of II stature and a lone III type in six drafts between 1969 and 1974. Moreover, Kevin Morrison, the only II type to graduate from a Quebec junior club, was drafted in 1969. The Candian and American colleges have a somewhat better record having produced one II and five III's over the same period of time. Borje Salming a I caliber defenceman from Sweden and Pekka Rautakallio a Finnish player of III quality were the only two European defencemen playing in North America who were young enough to qualify for the analysis. Two other defencemen Gary Sargent and John Van Boxmeer were developed in Junior "A" Tier II circuits, the former being a II and the latter a III. However, Van

Boxmeer may also become a II as he has recently been traded from the talent rich Montreal Canadiens where he was relatively inactive to the Colorado Rockies, where he will receive a better opportunity to establish his level of major league competence.

2. Centers

The W.C.H.L. and O.H.A. have provided the professional leagues with roughly the same number of quality centers the former developing three I'S and the latter four with each circuit producing six II's. The O.H.A. does, however, possess a decided edge with regards

Third, besides reference to statistics, personal observation also played an important role in determining a player's classification. If a particular individual's category was in doubt he was closely observed the next time he played either on a Hockey Night in Canada television broadcast or in a W.H.A. game in Edmonton where the author has been a season ticket holder for the last two seasons. Fourth, conversation with assorted people within the industry, primarily scouts and general managers, brought to light further information. These latter two sources of information were especially useful in evaluating defencemen and goaltenders. Fifth, media sources, such as radio and television interviews with coaches, managers and players as well as newspaper reports were also consulted with reference to the relative capabilities of playing personnel. Finally, a questionaire was mailed to each major league hockey firm's director of player personnel and these responses were also utilized in evaluating hockey players. to III's, developing eight compared to one by its western counterpart.

The Quebec League is again significantly less fertile than the other two Tier I Major Junior A leagues as it has sent only four II's and two III quality centermen on to N.H.L. and W.H.A. careers. Pierre Larouche, the only I caliber centerman who developed in the Quebec League, was not included in the analysis because he was selected as an underage in 1974 and would not have normally been eligible for the draft until 1975.

Peter McNabb is the only I caliber center produced by the American Colleges while Robbie Ftorek is a II caliber performer and two other individuals, Lynn Powis and Vic Venasky, are marginal or III quality players.

European hockey has produced one I caliber center Ulf Nilsson, and Roland Erickson, a III with sufficient potential to possibly achieve I or II stature. The only center from a Tier II background who is of III or better caliber is Larry Patey, a marginal player currently with the St. Louis Blues. It should be noted, however, that Robert (Butch) Goring, a II, split his draft year between Tier I and Tier II Junior A clubs.

3. Left Wings

Seven of the nine I caliber left wings entering professional hockey between 1969 and 1974 have come from the O.H.A. as have eight of the seventeen II's and nine of the sixteen III's. One I and four II's have emerged from the W.C.H.L. as well as five III's while the Quebec League has contributed one II and one III.

Two former collegians qualified as II's at the left wing position. However, this result is somewhat illusionary as Chuck Lefley was with the Canadian National Team when he was drafted and would probably have otherwise have been playing junior hockey. George Lyle, the individual of III stature, is enjoying a fine rookie campaign with the New England Whalers and may shortly move up into the II bracket if he establishes his consistency over the next season or two.

Two European left wings, Willy Lindstrom and Dan Labretten both qualified as being of II caliber. Errol Thompson, one of major league hockey's premier left wings, is the only individual at his position of III or better quality to emerge from the Senior or Tier II ranks.

4. Right Wings

Outstanding right wingers are one of the most scarce commodities in major league hockey. Of the five individuals considered to be I's three came from the W.C.H.L., one from the Quebec circuit and another from Sweden. The O.H.A. makes a more significant contribution towards the production of II's having developed six of the fifteen athletes in this category in comparison to five, one, two, and one by the W.C.H.L., Quebec league, colleges and Tier II Junior hockey respectively. Together the O.H.A. and W.C.H.L. account for twelve of the eighteen III type right wings entering professional hockey since 1969 with collegiate, Tier II Junior hockey, and the Quebec Junior circuit contributing two III's each.

5. Goaltenders

Goaltending is perhaps the most subjective position to evaluate because the goaltender's performance depends to such a large extent on the team in front of him. Even brilliant goaltenders have high goals against averages on poor squads while good goalies have won the Vezina Trophy on tight checking teams.

Virtually all of the I stature goalies in major league hockey were acquired by their clubs during sponsorship and hence are not subject to the analysis. Nine II type goalies have entered major league hockey since the sponsorship system was phased out and of these, six are graduates of the O.H.A. and while the other three emerged from the Quebec junior league. Seven of the eight goaltenders rated as III's are considered to be upwardly mobile in that they are relatively youthful and could achieve I or II status in future years. The Quebec junior circuit, the colleges and Tier II have all developed two goaltenders each while the W.C.H.L. and the O.H.A have produced one apiece in this category.

Sources of Talent - Conclusions

The O.H.A. and the W.C.H.L. are by far the two primary sources of top quality (I or II level) player inputs.

Together the two have produced twenty-one of the twenty-seven I's and sixty-two of the eight-two II's entering professional hockey between 1969 and 1974. Moreover they are particularly dominant with respect to the defence position, having produced three of the four I's and twenty-one of the twenty-four II caliber defencemen.

Although the O.H.A. has developed more talent with thirteen I's and forty II's to its credit compared to the W.C.H.L.'s eight I's and twenty-two II's there is evidence that the latter is increasing its productivity. For example ten of the first eleven players taken in the 1975 draft were graduates of the W.C.H.L.. However, due to its smaller population base it is unlikely that the W.C.H.L. will overtake the O.H.A. in the forseeable future.

Although the other Major Junior "A" loop, the Quebec League, is much celebrated as a source of fast skating, high scoring talent, it produces a disappointingly small number of quality (I or II caliber) hockey players. Despite the fact that Quebec has a population of 6,000,000 people compared to 7,700,000 for Ontario and 5,700,000 for the four Western provinces, the Quebec Junior circuit has developed only one I and ten II caliber hockey players between 1969 and 1974. Particularly appalling has been the paucity of outstanding professional defencemen developed by the league. Kevin Morrison, who graduated in 1969, was the only II caliber defenceman to emerge from the league during the aforementioned time span.

The poor showing of the Quebec league in relation to its major junior counterparts is partially attributable to the fact that the players drafted from the Montreal Junior Canadiens in the 1969, 1970, 1971 and 1972 drafts were credited to the O.H.A. as the team competed in that circuit until the 1972-73 season when it moved into the Quebec League and changed its name to the Montreal Bleau Blanc Rouge. Such top flight athletes as Gilbert Perrault, Marc Tardiff, Rejean Houle, Richard Martin, Jocelyn Guevermont and Andre Dupont graduated from the Junior Canadiens during this period as that club had long enjoyed a strong competitive advantage with respect to the recruitment of top talent from the province's minor hockey systems.

Nevertheless, the league's lack of success in developing top professional hockey players is still not completely explainable by the Junior Canadiens' participation in the O.H.A. circuit. Although Montreal was a member of the Quebec League during the 1972-72 and 1973-74 seasons the league still only produced three II's and four III's in the 1973 and 1974 drafts combined. Meanwhile two I's, eight II's, and thirteen III's and six I's, five II's, and six III's were sent on to the professional ranks by the O.H.A. and the W.C.H.L. respectively in the 1973 and 1974 drafts.

Two factors present themselves as possible reasons for the inferior quality of the Quebec loop's outputs. First, the province of Quebec's minor hockey system may not be the equal of Ontario or the Western provinces with regards to facilities, financing, or coaching. Second, the Quebec league has not adopted a professional style of play. Defensive play is not stressed with little emphasis being placed on taking the body. Consequently, many of the games end up being high scoring affairs. Moreover, the players themselves are on the whole smaller and less aggressive than their O.H.A. and W.C.H.L. counterparts.

The forwards' lack of size and the wide open style of play probably contribute to the low caliber of the defencemen produced by the league as they do not have to be as big or look after their own end as much as in the other Major Junior leagues. Many of the I, II and III caliber forwards developed by the league are said to have defensive deficiencies. However, the league's loose defensive style does apparently contribute to the development of goaltenders since three of the II caliber goalies came from the Quebec League. Presumably, they have no shortage of work.

College hockey does not at the present time develop enough outstanding hockey players to be considered more than a supplemental source of players. Only six of eighty-two II's and one of twenty-seven I's have been collegians. Moreover, it should be further noted that one of the II's, Chuck Lefley, probably would have played junior hockey if he had not been recruited by the Candian National Team. Collegiate hockey has, on the other hand, produced twelve of the eighty III's.

The European feeder system is perhaps the most intriguing of the five examined because it is such an enigma. Very little is known about the quality and quantity of the players left in Europe. One school of thought feels that the vast majority of Swedish and Finnish players capable of playing major league hockey are already doing so, while another is convinced that western Europe is potentially a tremendous new source of talent. Due to the lack of data few conclusions can be made with regards to the abilities of the players left in Europe but examination of the individuals currently playing in North America reveals some interesting facts.

First, a large percentage of the ten Europeans playing major league hockey who qualified for the analysis by being born in 1949 or later (the year of 1969 draft) are considered to be quality athletes, three being I's and two II's, with two other individuals being rated as III's. The high quality of these inputs leads one to speculate as to whether or not that there might be more similarly skilled players still in Sweden and Finland.

Second, study of the European professional hockey players on a cohort basis reveals that four of the ten: Borje Salming, Anders Hedberg, Dan Labretten, and Willy Lindstrom were all born in 1951 and therefore would have been eligible for the 1971 draft. It is difficult to believe that Sweden produces this many outstanding hockey players every year (Salming and Hedberg are I's while Labretten and

Lindstrom are II's) on a long term basis; however, if only one or two athletes of this caliber are available each year it is certainly worthy of more consideration as a source of talent.

Table II

Player Quality and the Amateur Feeder Systems

Defence

Player Quality

		I	II	III
	OHA	2	14	7
	WCHL	1	7	9
Feeder System	Quebec		1	1
	College		1	5
	Europe	1	1	1
	Tier II		1	1
	Total	4	24	23

Left Wing

Player Quality

		I	II	III
	OHA	7	8	9
	WCHL	1	4	5
Feeder System	Quebec		1	1
	College		2	1
	Europe		2	
	Tier II	1		
	Total	9	17	16

Table II (Continued)

Center

Player Quality

		I	II	III
Feeder System	OHA	4	6	8
	WCHL	3	6	1
	Quebec		4	2
	College	1	1	2
	Europe	1		1
	Tier II			1
	Total	9	17	15

Right Wing

Player Quality

		I	II	III
Feeder System	OHA		6	8
	WCHL	3	5	4
	Quebec	1	1	2
	College		2	2
	Europe	1		
	Tier II		1	2
	Total	5	15	18

Table II (Continued)

Goal

Player Quality

		I	II	III
	OHA		6	1
	WCHL			1
Feeder	Quebec		3	2
System	College			2
	Europe			
	Tier II			2
	Total		9	8

B. Player Quality and Draft Position

Due to the fact that the size of the rounds in the N.H.L. draft have increased from twelve, to fourteen, to sixteen, and finally to eighteen positions as the league has added more teams, the present definition of one round constituting eighteen consecutive draft selections will be employed in this analysis. Thus the first round extends from the first to the eighteenth player inclusive, the second round from the ninteenth to the thirty-sixth individual and so on. Previous drafts were also analyzed in this manner.

The most significant characteristic of the universal amateur draft is that it is heavily skewd towards the first few rounds with respect to the quality of the eligible player inputs. Few top quality athletes are available past the draft's third or fourth round.

Of the twenty-seven I's drafted between 1969 and 1974, excluding underage juniors, thirteen were amongst the first five individuals selected in their draft year. Nineteen of these twenty-seven players were chosen in the first round with two being selected very early in the second round while another went in the third. Three players of I stature are Swedish and were not drafted because they became eligible for the draft at a time when Europe was lightly regarded as a source of major league talent. Dennis Sobchuk, the final I caliber athlete, was drafted much lower than he normally would have been as he had signed a long term contract with the W.H.A. prior to the N.H.L. draft and consequently was unavailable until his multi-year contract expired.

Similarly, thirty-four of the eighty-two II type players who came of draft age in the years 1969-74 were selected in the draft's initial round with another eighteen being chosen in the next round and twelve in round three. A further eight athletes of II caliber were drafted in round four. Thus sixty-four of the eighty-two II's were taken in the draft's first three rounds and seventy-two of them were amongst the first seventy-two players selected in their draft year. A large proportion (fifty-three out of eighty) of the marginal or III quality players were also taken within the first three rounds of the draft. Twenty-two, nineteen, and twelve III's were selected in the first, second and third rounds of the draft respectively.

This high degree of skewdness has several important implications with respect to building and maintaining a legitimate contender. If no draft choices were exchanged the weak teams would gradually become stronger as they acquired the best amateur prospects while the current legitimate contenders would weaken and drop in the standings because of their inability to replace their I type players via the draft. Even possession of an extremely efficient scouting system probably could not stave off a slip in the standings since the future I caliber players are so well known they would be gone before the legitimate contender had an opportunity to select them. Thus no matter how efficient or rationalized a scouting system may be its effectiveness is still heavily dependent on how many early choices it possesses.

Table III

Draft Position and Player Quality

1969 Draft

	Is (2)	II (13)	III (6)
First Round (1-18)	R. Clarke M. Tardif	R. Houle R. Redmond A. Dupont J. Rutherford I. Boldriev D. O'Brien R. Stackhouse	P. Jarry D. Tannahill
Second Round (19-36)		G. Gilbert K. Morrison	
Third Round (37-54)		R. Goring D. Maggs F. Hughes	E. Patenaude D. Schultz
55th and later including free agent		D. Saleski	L. Powis B. Spencer

Table III (Continued)

1970 Draft•

	I (6)	II (11)	III (15)
First Rou (1-18)	G. Perrault R. Leach R. MacLeish D. Sittler	C. Lefley D. Tallon G. Polis D. Maloney C. Oddleifson	W. Clement R. Plumb R. Stewart E. Deadmarsh F. Harvey
Second Round (19-36)	E. Thompson	M. Murphy D. Bouchard	R. Kelly A. McDonough J. O'Flaherty
Third round (37-54)		Y. Lambert	R. Climie L. Frig J. French
55th and later including free agents	U. Nilsson	O. Kindrachuk W. Smith	R. Wilson H. Nowak G. Meloche R. Low H. Graves

Table III (Continued)

1971 Draft

	I (7)	II (14)	III (11)
First round (1-18)	G. Lafleur M. Dionne S. Vickers R. Martin	M. Wilson J. Guevermont T. O'Reilly	P. Plante K. Baird C. Arnason S. Durbano
Second round (19-36)	L. Robinson	C. Ramsey R. Kehoe T. Williams R. Leduc J. Noris W. Hajt	C. Ridley V. Venasky G. Irwin
Third round (37-54)		G. Kirk J. Garrett	H. Monahan N. Komadowski
55th and later including free agents	A. Hedberg B. Salming	P. Sullivan W. Lindstrom D. Labretten	W. Butters J. Butler

Table III (Continued)

1972 Draft

	I (5)	II (16)	III (16)
First round (1-18)	D. Lever S. Shutt W. Barber	W. Harris W. Merrick M. Laroque P. Russell R. MacMillan J. Schoenfeld	D. Gardner G. Ferguson J. Van Boxmeer D. Bialowas
Second round (19-36)		T. Bladon R. Nystrom P. Guite S. Weir	D. Kozak L. Sacharuk L. Carriere D. Hutchinson
Third round (37-54)	J. Watson	D. Herron	C. St. Sauver
55th and later including free agents	P. McNabb	A. Mac Adam W. Nyrop G. Howatt R. Ftorek R. Preston	D. Ellenbaas G. Gratton T. Simpson S. Beaudoin P. Boutette M. Ford R. Brodeur

Table III (Continued)

1973 Draft

	I (4)	II (11)	III (20)
First round (1-18)	D. Potvin T. Lysiak L. MacDonald R. Gainey	A. Savard B. Stoughton R. Dailey D. Rota D. Ververgaert I. Turnbull R. Middleton	J. Davidson B. Neely G. Goldup
Second round (19-36) Player		L. Goodenough E. Vail D. Lewis	W. Bianchin P. Marrin C. Campbell P. Hickey R. Thomas J. Jacques D. Gibson
Third round (37-54) Player		D. Talafous	N. Pyatt R. Gassoff A. St. Laurent
55th and later including free agents			A. Hangsleben B. McDonald D. Polonich G. Lyle L. Patey R. Murdoch P. Rautakallio

Table III (Continued)

1974 Draft

	I (3)	II (16)	III (12)
First round (1-18)	C. Gillies D. Gare	R. Chipperfield C. Connor D. Riseborough D. Larway G. MacGregor D. Williams	R. Chartraw R. Greschner R. Sedlebauer B. Affleck
Second round (19-36)		J. Hughes G. Sargent	P. Lopresti R. Bourne
Third round (37-54)		M. Howe T. Edur H. Snepsts M. Bergeron	R. Sirois
55th and later including free agents	D. Sobchuk	T. Ruskowski M. Rogers G. Lariviere J. Locas M. Palmateer	K. Devine R. Erickson M. Dion W. Miller A. White

C. Drafting Efficiency

Methodology

Drafting efficiency, how well a team drafts in relation to the number and quality of draft choices it has had, was studied in the following manner. Since early selections are more desirable than later choices due to the previously mentioned high degree of skewdness present in the draft it became necessary to divide the draft into segments of selection numbers. The selection number ranges studied in each year of the draft between 1969 and 1974 were the first to the fifth, the sixth to tenth,, eleventh to the eighteenth, nineteenth to the thirty-sixth and thirty-seventh to fifty-fourth draft choices every year. Every individual chosen by each team in these ranges was noted. Next all the players taken in the first three rounds of draft between 1969 and 1974 were evaluated on the five point scale described in the previous section dealing with draft selection position and player quality. I and II caliber players were regarded as solid successes, while IV's and V's were failures. III's were held to be neither failures nor successes because while they are of too low a quality to build a team around (since they only serve to supplement the talents of the I's and II's) they still possess some value as they can make a contribution to team success on the third or fouth line or as the fifth or sixth defenceman and are useful as currency in transactions for draft choices or superior players (when quantity can be exchanged for quality).

Drafting efficiency was examined in two different ways the number of solid successes a club achieves within a given range of draft positions, and the number of complete failures occuring in the same draft segment. Due to the fact that the number of choices that a team has had in a particular segment of the draft varies considerably between clubs frequency rates of failure and success were calculated to facilitate comparison between the different teams.

The success rate was computed by dividing the number of I's and II's a club had drafted within a particular range of draft choices by the total number of picks it had within the range. Similarly, the number of IV's and V's picked by a team within a given portion of the draft divided by the total number of choices within that draft segment yielded the failure rate. It should be noted that addition of the failure and success rates does not necessarily yield one because III's are considered to be neither successes nor failures.

An example may serve to illustrate the failure and success rate concepts. Team A has selected ten players between nineteenth and thirty-sixth over the course of the years. These choices yielded one I, two II's, two III's, two IV's and three V's. Team A's success rate would be 3/10 or .300 while its failure rate on the other hand would be 5/10 or .500. The frequencey rate for III's in this example is .200, the difference between 1.00 and the success and failure rates added together.

Some adjustments in methodology were necessitated by the draft of underage juniors in 1974. In addition, further adjustments had to be made for underage juniors who signed with the W.H.A. prior to completion of their eligibility but were later selected in the N.H.L. draft when they became eligible. Naturally, these athletes were picked much lower in the draft than they normally would be due to their unavailability.

Underage juniors and prior signings were adjusted for by excluding them from the analysis. The fourteen underage choices in 1974 were treated as if they had not occurred with the draft selection numbers of the overage players being adjusted accordingly. For example, Ron Chipperfield, was the seventeenth player taken in the 1974 draft before the underage corrections were made but became the eighth when the nine underage juniors chosen before him were excluded. Four individuals, Marty Howe, Tom Edur, Dennis Sobchuk, and Jacques Locas were excluded from the efficiency ratings because they were under contract to W.H.A. firms at the time that they were drafted. Mark Howe could also have been included in this group but he was already excluded because he was drafted as an underage junior. Prior signings were removed from the analysis to avoid the problems of subjectivity involved in providing them with a draft selection number indicative of their ability rather than their availability.

Another important problem that permeates the entire draft efficiency evaluation is the small number of choices some teams have had in certain of the draft segments analyzed. For instance only two teams had four or more picks in the sixth to tenth player chosen range. Under these circumstances one success or failure can heavily influence a club's failure or success rate.

It must be emphasized that any prediction of a person's performance in any human endeavour at a point of time in the future is tinged with a degree of uncertainty. Consequently, it is unfair to expect a scouting staff to eliminate all uncertainty surrounding its choices. However, they are accountable for the reduction of this degree of risk to its lowest possible level. Reasonable standards of excellence with respect to success and failure rates based on the preformance of the better drafting firms will be developed for each draft segment analyzed. These standards, since they are intended to facilitate comparison between firms and allow them to determine how well they are drafting in relation to how well they should be drafting, were set slightly higher than the most efficient scouting performances within any given draft segment in order to provide a reasonable goal for which to strive.

Drafting Efficiency - Findings

1. Draft Selection Positions 1-5

It is extremely rare for a team drafting within this range to fail to chose a player of at least II stature. Of the thirty athletes chosen in this segment of the draft between 1969 and 1974 thirteen were I's, eight were II's and five were III'x. Thus the failure rate for this range of draft positions as a whole was only .133 while the success rate was .700. The overall failure and success rates in this draft selection range are somewhat deceptive in that it is possible to draft considerably better than the aforementioned average. The Vancouver Canucks for instance have a success rate of 1.00 in 4 picks as do the New York Islanders in three choices while the Montreal Canadiens organization has achieved a .857 success rate and a .143 failure rate with respect to the seven draft choices it has had within this range. In fact the probability of drafting a I or II caliber hockey player is so high a success rate of 1.00 and a failure rate of .000 are attainable and not unreasonable standards of efficiency to strive for within this portion of the draft.

2. Draft Positions 6-10

The New York Rangers and Clevland Barons have both achieved success rates of .667 and failure rates of .333 on three draft choices each within the 6-10 range while the Philadelphia Flyers on four choices have attained identical .500 success and failure rates. However, due to the fact that they have had so many choices within this range the scouting proficiency of the Montreal Canadien's organization is perhaps most indicative of the efficiency standards that a club can hope to achieve within this draft selection number range.

Montreal has attained a success rate of .428 and a failure rate of .142 on the seven choices it has had in this portion of the draft. It should be noted, however, that these rates are probably understated since not all of these seven individuals have had an adequate opportunity to demonstrate their professional level of proficiency in the talent rich Montreal organization. For example Rick Chartraw, currently the team's sixth defencemen, is highly regarded by opposing general managers and coaches but was rated as only a III because he receives insufficient ice time to properly evaluate him. Similarly, Gordon McTavish, the only Montreal draftee from this portion of the draft rated as a IV, is enjoying a fine year in the American Hockey League and quite conceivably could be a II or III. If both McTavish and Chartraw are II's or better the organization's success rate becomes .714 and its failure rate .000 while if one of these athletes is a II and the other a III the success rate decreases to .571 with the failure rate remaining the same.

Based on the evidence it appears to be possible for a team to maintain an exceptionally low failure rate and a relatively high success rate within this portion of the draft. A standard of a .80 success rate in combination with a .00 failure rate appears to be attainable and reasonable as Montreal is almost at this level if McTavish and Chartraw are both II's. When a team with an efficient scouting system makes an error in assessing a hockey player's ability in an early portion of the draft it appears to be able to minimize its losses by at least selecting a marginal player with some salvage value whereas inefficient scouting systems tend to chose a higher percentage of players that are completely inadequate.

3. Draft Selection Positions 11-18

A very low failure rate is still very much attainable in the latter part of the draft's first round although it is slightly more difficult to achieve a high success rate. The fact that of the teams with three or more choices in this range Montreal and Toronto had failure rates of .000 seems to indicate that it is possible to at least eliminate serious errors (IV's and V's) in this portion of the draft. Unfortuately, the teams with better success rates had few draft choices, making it difficult to develop a suitable standard for a success rate. Toronto achieved a .667 success rate on its three choices while Montreal with four selections had a success rate of .500. Again this latter success rate is likely understated because one of the two Montreal draftees rated as a III, John Van Boxmeer, is probably in fact a II, but due to a lack of ice time has been unable to establish himself at this level of proficiency. In all, a success rate of .700 would appear to be a high but reasonable and attainable standard for a team with a well rationalized scouting system that is drafting between eleventh and eighteenth.

4. Draft Selection Positions 19-36

The probability of drafting successfully diminishes significantly in the second round of the draft. Of the twelve teams with five or more second round choices in the drafts between 1969 and 1974 only two, the Buffalo Sabres and New York Rangers, had success rates in excess of .300. Moreover, the two lowest failure rates attained by any of these twelve clubs over this time period were the .166 and .333 rates recorded by Los Angeles and Philadelphia respectively. Given that the Rangers achieved a success rate of .375 and Los Angeles failure rate was only .166 a success rate of .400 and a failure rate of .150 appear to be attainable albeit extremely high standards for the second round of the draft.

5. Draft Selection Positions 37-54

As can be expected given the high degree of skewdness present in the draft there is even less chance of a team being able to draft successfully in the third round than in the second. While three teams were able to make two or more successful selections with their second round choices only one, the Toronto Maple Leafs, accomplished this feat with its third round picks, even though thirteen clubs had five or more third round equivalent picks. Thus the best a team can hope for in the third and subsequent rounds is to minimize its unsuccessful choices by selecting III's and occasionally choosing a II caliber player. In fact, a success rate of .300 and a failure rate of .500 would constitute a truly exceptional efficiency performance in the third round of the draft.

Table IV Drafting Efficiency

Franchise	Draft Selection Positions 1-5			Draft Selction Postions 6-10			Draft Selection Postions 11-18			Draft selection Positions 19-36			Draft selection Positions 37-54		
	Success Rate	Failure Rate	# of Choices	Success Rate	Failure Rate	# of Choices	Success Rate	Failure Rate	# of Choices	Success Rate	Failure Rate	# of Choices	Success Rate	Failure Rate	# of Choices
Atlanta	.500	.500	2			0	.00	-		.333	.667	3	.333	.667	3
Boston	.500	.250	4	.333	.333	3	.500	.25	4	.125	.625	8	.000	1.00	5
Buffalo	1.00		3			0	.333	.333	3	.333	.500	6	.000	1.00	4
Cleveland			0	.667	.333	3	.333	.000	2	.000	1.00	3	.000	.600	5
Chicago			0			0	.600	.400	5	.000	1.000	6	.142	.714	7
Detroit	.500	.500	2	1.00	.00	1	.000	1.00	3	.000	1.000	4	.250	.625	8
KC-Colorado			0		1.000	1			0	.000	.000	1			0
Los Angeles			0			0	1.00	.00	1	.166	.166	6	.166	.500	5
Minnesota	1.00	.00	1			0	.200	.600	5	.166	.833	6	.000	.833	6
Montreal	.857	.143	7	.428	.142	7	.500	.00	4	.111	.777	9	.00	.875	8
N.Y.Islanders	1.00	.000	3			0	.00	1.00	1	.500	.500	2	.000	.500	2
N.Y.Rangers			0	.667	.333	3	.333	.333	6	.375	.375	8	.000	1.000	6
Philadelphia			0	.250	.500	4	.500	.00	2	.166	.333	6	.166	.667	6
Pittsburgh			0	.666	.333	3	.000	1.00	2	.250	.500	8	.200	.600	5
St. Louis	.00	.500	2	1.00	.00	1			0	.000	1.00	4	.100	.700	10
Toronto	1.00	.00	1	.333	.333	3	.667	.000	3	.285	.571	7	.285	.714	7
Vancouver	1.00	.00	4	1.00	.000	1	.000	.667	3	.200	.800	5	.200	.800	5
Washington	.00	1.00	1			0			0		1.000	1			0
STANDARD	1.00	.000		.88	.00		.70	.00		.400	.150		.300	.500	

D. Player Quality and the Pay-Off Period

A transitional period of time is often thought to be required in order for an amateur player to make a successful transition from the amateur feeder system to the major league professional ranks. The length of this transitional period was measured both by determining when the player first began to make a significant contribution towards his team's success and by noting the length of his minor league apprenticeship before he made the major league roster.

The productivity of most forwards was largely measured through examination of their scoring statistics while defencemen and defensive forwards were judged more by other signs of progress such as when they became regulars or began to be highly regarded by the media. The length of time it took each player to make a significant contribution towards his team's success was measured in terms of seasons. An individual from an amateur feeder system stepping directly into the major league professional ranks and achieving immediate success was said to have required no transition time. Similarly, a player blossoming in his sophomore professional season was said to have required one season of transition time.

The amount of minor league seasoning a player required was determined by the number of minor leagues games he participated in before he made the major league roster. Most minor league teams play approximately a seventy game schedule.

Findings

The mean number of transitional seasons required by the I caliber player personnel entering professional hockey between 1969 and 1974 were .625, 1.25, .77 and 1.33 seasons for centers, right wings, left wings, and defencemen respectively. By the same token the average number of minor league games played by individuals achieving I stature is also exceptionally low, being under a half season in most cases. The average number of minor league games played was eleven for centers, ten for right wingers, twenty-six for left wings, and sixty-two for defencemen.

The results for II caliber players were similar to those for I type individuals except that they had on the whole slightly longer transitional periods and minor league apprenticeships. II type centers, left wings, right wings, and defencemen on average required 1.44, 2.00, 1.33 and 1.25 seasons respectively to mature enough to contribute significantly towards team success and spent an average of 57.43, 50.66, 43.6 and 48.4 games in the minors.

It should be noted that although the average number of transitional seasons required before a player begins to provide a significant contribution towards team success is not greater than two in any position for either I or II caliber players and is well under one for some positions, even these low figures are somewhat inflated. Players cannot establish their level of professional prowess if they are not given an opportunity and in many instances, for essentially two reasons they are not provided with this opportunity. First, on several occasions in recent history the better N.H.L. clubs notably Montreal, Boston and the New York Rangers have succeeded in accumulating an excess of talent, which in most cases has been stockpiled on a minor league affiliate or end of the bench. Despite the fact that they had the necessary talent, the athletes stockpiled in this manner were unable to establish their credentials as I or II caliber players until they received more ice time. For example, Darryl Sittler languished on the bench for two years behind the Toronto Maple Leaf's two fine veteran centers Norm Ullman, and Dave Keon before he began to receive his share of the ice time and established himself as a star. Similarly, Reg Leach, Chris Oddleifson, Dan Bouchard, Rick MacLeish, Richard Leduc and Ivan Boldriev were all at one time the property of the Boston Bruins but were not widely recognized as fine players until they moved to other clubs and received a sufficient amount of ice time to establish their credentials.

The second reason why a good many talented young players spend an excessive amount of time in the minors or on the bench is that major league hockey managers and coaches still worship before the tin god Experience. They never tire of expounding the virtues of experience and perhaps without realizing it help to perpetuate its myth by unduly restricting young players' ice time, thereby not permitting them to demonstrate that they possess major league talent. For example Bill Harris and Steve Shutt were junior hockey superstars when they were drafted from the Toronto Marlboroughs, the former being taken first and the latter fourth, but their development patterns took different directions due to the amount of playing time they received. Harris was selected by the New York Islanders, a weak expansion team, and almost immediately demonstrated that he was a solid major leaguer while his former linemate Shutt was drafted by the powerful Montreal Canadiens orgaization and played irregularly until his third year as a professional. After he received more ice time in his third year, Shutt became one of the highest scoring left wings in major league hockey. The author's point is this: if Shutt had received the ice time that Harris did early in his career he would have probably blossomed much earlier, perhaps in his first year.

The justification usually given for restricting younger players' ice time is that they are not as accomplished with respect to the game's defensive aspects as veterans. This assumption can neither be verified nor disproved empirically; however, in the opinion of many knowledgeable hockey men, including Bill MacFarlane, currently president of the W.H.A., defensive ability is more closely related to talent than experience. While checking may be given more emphasis in the professional ranks the individuals with the best physical ability can probably make the adjustment within a short period of time relatively easily. Checking is after all 90% perspiration and 10% inspiration.

E. Amateur Indicators of Professional Success

Due to the fact that only a human being can properly weigh, measure and evaluate the mydriad of factors, both tangible and intangible, that must be taken into consideration when assessing an amateur player's professional potential the scout still provides the most accurate evaluation of an athlete's professional capabilities. Thus, although some major league hockey firms borrowed a page from the scouting techniques of their N.F.L. brethern, in that they experimented with computer-oriented player assessments, the vast majority of these clubs have almost totally rejected this approach and currently rely primarily on their scouting staffs.[40] The computer ratings were found to be less accurate than assessments by scouts because they could not adequately deal with the intangible factors that determine whether an individual is or is not a good professional prospect. Since these intangible factors are most readily apparent in the course of a game the greatest portion of scouting must be done during live contests. However, certain statistical indicators of professional potential can prove useful in reducing evaluation errors by helping to establish minimal criteria for propects at different positions.

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[40] Ralph Bridgeland, "How to Scout Players...and Save Money, Too!", The Hockey News, Jan. 9, 1976. Two clubs used computer tie ins during the 1975-76 season.

Methodology

These standards were established after consulting the available statistical data on three groups of players. The athletes rated as I's or II's in each position were studied with respect to their physical characteristics such as height and weight as well as their amateur scoring and penalty minute records. Next, the individuals who were well regarded, that is amongst the first thirty-six prospects selected during their draft year, but failed to produce at better than a IV level in the professional ranks were also examined in an effort to determine how they differed from the athletes who went on to become I's and II's. Finally, explanations were sought for the isolated occurrence of "sleepers", players either chosen in a low round or not drafted at all, that eventually achieved I or II stature at the professional level.

1. Defencemen

The primary predictive factors associated with top caliber professional defencemen are their size and ability to move the puck. The average height of the twenty-four I and II caliber defencemen drafted between 1969-74 season was six foot one with an average weight of two hundred pounds. Moreover, only Dick Redmond at 178 pounds weighed less than 190 pounds. Although he is an exceptional point man and puck handler he is said to have weaknesses in his own zone that result from his lack of size.

Their amateur points per game were utilized as a measure of defencemen's ability to move the puck smoothly out of their own zone. The average I or II caliber defenceman entering Major league hockey from a Major Junior feeder system accumulated in excess of a point per game during his last season in amateur hockey with the lowest points per game total of .60 points per game being registered by John Hughes of the Cincinnati Stingers while six other individuals scored between .70 and .80 points per game.

After further consultation with the available statistics minimal criteria of 190 pounds in weight and .70 points per game in their last year of amateur hockey were established for major league defence propects coming from the Major Junior ranks. However, Quebec Junior League graduates, due to the wide open style of play prevalent in this circuit, were required to meet a higher scoring criteria of 1.25 points per game.

When these minimal standards were compared to the statistical characteristics of the twenty-five IV and V caliber defencemen selected within the first two rounds of the draft since 1969 it was found that twenty-one of the twenty-five did not meet one or more of these criteria. Eleven defence propects weighed under 190 pounds and fourteen failed to score at least .70 points per game (four players qualified in both categories). Three of the remaining four players are said to have had attitude problems.*[1] The last individual, Wayne Elder, met the size and point standards but is an unknown quantity as he is now out of professional hockey.

The reason why size is such a critical determinant of professional success for defencemen is probably that in order to be effective they must be able to win the puck in the corners and along the boards in the defensive zone and discourage opposition forwards from screening the goal tender. Obviously a bigger, stronger athlete is more capable of performing these functions well as he is more difficult to take off the puck and is better equipped for taking the opposition out of the play in the prescribed manner, that is with his body.

However, despite the need to have a certain amount of physical presence to play defence at the major league professional level, expertise or finess is also a prerequisite especially with respect to the athlete's ability to move the puck smoothly out of his own zone. It is this latter element that is probably being measured by the defence prospects' amateur points totals. Either amateur defencemen who collect a substantial number of points are good at coming out of their own zone or they have the physical skills that allow them to learn how to come out properly.

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*[1] Information about players' attitudes was garnered through newspaper articles and conversation with people within the industry.

2. Centers

I and II caliber centers are on average smaller, less aggressive, and better scorers than other players of equal stature who play different positions. The average I or II caliber center stands just under six feet tall and weighs approximately 182 pounds. However, since several very fine centermen notably, Butch Goring, Dennis Maruk, Doug Jarvis, and Terry Ruskowski play extremely effectively at between 165 and 170 pounds this weight could be more accurately regarded as a proper minimum size standard for this position. Only Robbie Ftorek, the 148 pound center of the Phoenix Road Runners violates this rule of thumb.

The better professional centers were also less heavily penalized during their last year in the amateur feeder system than their counterparts on defence and the wings. Several top centermen such as Darryl Sittler, Gilbert Perrault, Wayne Merrick and Butch Goring picked up less than half a penalty minute a game in their last year of amateur hockey. Thus low penalty minutes by a center should not mitigate heavily against him in evaluating his professional potential. On the other hand several other individuals received one hundred or more penalty minutes in their last year of junior hockey.

Virtually all top flight professional centers were excellent scorers in amateur hockey. In fact, Doug Riseborough and Peter Sullivan were the only I or II caliber centers entering professional hockey since the draft began in its present form in 1969 to score less than a point and a half per game in their last seasons in the amateur feeder system and both had health problems in their graduating years.

When the reasons why centers chosen early in the draft were unsuccessful at the professional level are examined a large percentage of the errors in evaluation are attributable to a few significant factors. Six of the twenty centers drafted within the first two rounds who failed to perform at least at a III level of competence in the professional ranks had attitude problems and four others experienced health problems as professionals. Three of the individuals with attitude problems Gene Carr, Glen Burdon and Larry Wright also experienced difficulty with scoring in junior hockey. They scored only thirty-six, nineteen, and twenty-four goals respectively in their last year of junior where a large number of players score forty or more goals.

3. Wingers

Due to the similarity of their distinguishing characteristics left and right wingers were grouped together for the purposes of analysis. Although the average I or II caliber winger stands six feet tall and weighs 185 pounds this should not be regarded as a minimum standard since several individuals of II caliber are some fifteen pounds lighter than the average. However, all of the athletes performing well at this lighter weight Dan Gare, Rick Middleton, Michel Bergeron, Rejean Houle and Gary Howatt are exceptional skaters and scored very well in junior hockey. Therefore 170 pounds would appear to be a reasonable minimum size for a winger providing that he is exceptionally skillful and not easily intimidated. Naturally, an individual's skill level can most accurately be evaluated through observation during game situations by a knowledgeable scout.

Wingers also have a tendency to be more heavily penalized than centers. Only eight of the forty I and II caliber wingers examined averaged less than one penalty minute per game in their last year of amateur hockey. Almost without exception the top wingers in major league hockey were good scorers in the amateur ranks. Of the thirty-seven I and II caliber wingers in major league hockey graduating from a Major Junior circuit since 1969 only four Bob Gainey, Bob Nystrom, Mike Murphy and Frank Hughes did not score at least a point per game in their last year of junior hockey, averaging .77, .81, .92, and .56 points per game respectively.

Forty-eight wingers selected amongst the first thirty-six players chosen in their draft year failed to develop into major league performers of at least III stature. Of these fourth-eight individuals, eight weighed under 170 pounds, another eight were unaggressive, and an additional eight players had attitude problems. Four other athletes John Rogers, Brent Leavins, Brian Ogilve, and Henry Boucha were prevented from achieving their full potential by health problems.

Moreover, six of the nine Quebec League wingers drafted within the first two rounds have failed to perform at better than a IV level of prowess which leads one to believe that the style of play in the league might mitigate a successful transition to major league hockey.[42]

4. Sleepers

Sleepers in this analysis are defined as those players who were not highly regarded prospects in their draft year, that is were selected fifty-fifth or later in the draft or were free agents, but went on to become I or II caliber professional hockey players. The vast majority of sleepers met the aforementioned minimum physical and scoring standards for their positions but spent their draft years playing in leagues that were not highly regarded as producers of major league talent at that time. In all, five sleepers were of I caliber and seventeen were II's. Of the five I's one was Dennis Sobchuk, an extremely well regarded prospect who had signed as an underage junior with the W.H.A. while three other sleepers (Anders Hedberg, Borje Salming, and Ulf Nilsson) were European players who became eligible for the draft prior to the first Russian-Canada series; an event that was to force scouts to reevaluate Europe as a producer of major league talent. The other sleeper of I caliber was Peter McNabb an American college hockey player who was probably selected later partially because it was questionable as to whether or not he would be immediately available.

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[42] One round of the draft is defined as eighteen draft positions. Therefore round one consists of draft positions 1-18, round two draft positions 19-36 and so on.

A similar pattern emerges with regards to the seventeen sleepers of II quality. Again two of these individuals Dan Labretten and Willy Lindstrom are Europeans. Jacques Locas, another highly rated prospect, was drafted later because he had signed with the W.H.A.. An additional four players Bill Nyrop, Al MacAdam, Orest Kindrachuk, and Robbie Ftorek came from American and Canadian colleges when they were not heavily scouted. Don Saleski, the Philadelphia Flyer right wing, although drafted from Tier II hockey, not exactly a hot bed of major league talent, was still taken in the fourth round. Three other players Terry Ruskowski, Mike Rogers, and Gary Lariviere were also chosen within the fourth round. Two of the seventeen II type players, Gilles Meloche and Billy Smith, were goaltenders that came from the Quebec Junior League where it is extremely difficult to evaluate goaltenders because of the loose defensive play prevalent in the circuit.

The same type of pattern holds true for the twenty-seven sleepers of III quality. Six of these players were drafted from colleges, five were goalies, four came from the European feeder system while three graduated from Tier II clubs and eleven were major junior graduates.

The probability of being able to select sleepers may be decreasing as the N.H.L. further rationalizes its scouting system. Europe and the colleges are no longer lightly regarded as sources of major league talent. In fact, the fifth player selected in the 1976 N.H.L. draft, Bjorn Johonsson, is European as were seven other hockey players drafted in 1976. Moreover, the N.H.L. in 1975 established a scouting combine, the Central Scouting Service (C.S.S.), modeled after the very effective scouting services employed by National Football League clubs. The C.S.S. employs nine full time scouts who evaluate all of the draftable players on the Major Junior, college and Tier Two hockey hockey teams in both the United States and Canada. This information is then passed on to the individual N.H.L. teams. The C.S.S. is utilized as a screening device by most teams which enables them to isolate the better prospects and have their own scouting staffs concentrate on them. However, it is quite possible that this scouting combine will also pick up many of the individuals who might have previously slipped by virtually unnoticed by most clubs and become sleepers.

CHAPTER IV

I. Prerequisites to Success In the Major League Hockey Industry

The four elements critical to the long run viability of a successful major league hockey franchise situated in an imperfect market are: an adequate hockey market, a facility of major league quality, sufficient financial resources to absorb large losses in the short run, and lastly an organization capable of assembling, maintaining and marketing a legitimate contender in the long run.

Without each of these elements a major league hockey franchise is a poor long run business proposition while on the other hand if they are present in conjunction with one another the business is extremely lucrative. Thus there are wide divergences in the profitability of the various franchises. On one end of the spectrum four N.H.L. teams Cleveland, Colorado, Detroit and Washington anticipate losses of $1 million or more on the 1976-77 season while at least five teams, Montreal, Buffalo, Philadelphia, Toronto, and the New York Rangers are all expected to generate net revenues in excess of $2 million. Each of the factors crucial to success will be discussed in more detail with particular emphasis given to the most complex element, the development of a successful major league hockey organization.

A. An Adequate Hockey Market

An adequate hockey market is defined as one that will utilize a major league hockey firm's full seating capacity at a relatively high average price per seat when the team is of championship caliber and will support the club well enough to at least allow it to approach its break-even point when the team is of average quality. Only hockey firms situated in perfect markets can expect to remain profitable when their team is of poor quality. Moreover, due to the high fixed cost nature of the industry the market must be of adequate quality immediately. Any attempt to develop an adequate market over a long run period of time of perhaps ten to fifteen years is prohibitively expensive under the financial conditions that presently exist within the industry as firms located in such markets lose between $.5-2.5 million dollars annually. Thus a firm attempting to develop an adequate market over a ten year period could conservatively expect to lose $5 million in addition to the franchise's purchase price with little assurance that it is possible to develop such a market.

B. A Major League Facility

Since some hockey matches have more utility attached to them than others (for numerous reasons such as the presence of a star player or a strong rivalry between the teams), a large seating capacity is also vital to firms experiencing low or moderate demand for their product. Firms in this situation rely heavily on the profits made from dates with the better drawing visiting teams to ameliorate the losses incurred when the opposition is less attractive. A 15,000 seat facility is currently regarded as the minimum size required to provide a significant return on investment. Several W.H.A. clubs such as Winnipeg, Quebec and New England which are not as profit oriented because they are either community owned or are operated by firms or individuals out of more of a sense of community involvement are presently subsisting in arenas with under 11,000 seats. However these firms are also making plans to upgrade their facilities.[1]

Access to a modern, comfortable arena with at least 15,000 seats is absolutely vital to a major league hockey firm's long run viability. The size of the arena to a large extent provides an effective constraint on the firm's profitability since there are finite limits to the number of games that can be played as well as on the magnitude of ticket prices. For example, if a major league hockey firm operating on a $3.6 million budget charges an average price per seat of $7.50 it must average 12,000 fans per game to break-even on in-person attendance revenues generated during the forty home game regular season. If the club is experiencing high demand for its product and can utilize all of its available seating capacity its in-person attendance revenue generating potential for the regular season is only $4.5 million if it has a 15,000 seat facility as compared to $5.1 million if its arena seats 17,000 people.

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[1] Reyn Davis, Winnipeg Free Press, March 12, 1976, page 18.

To the extent that it represents the hockey contest's package, the arena is an important part of the total product being sold by a major league hockey firm and consequently can have a significant effect on attendance. This is especially true in market areas experiencing low or moderate demand for hockey as firms in these regions rely heavily on the walk-in gate. Deficiencies in the arena's comfort, accessibility or management which lower the utility of a hockey contest have a greater effect on attendance in these markets because consumers are not strongly motivated to attend. For example, although the Detroit Red Wing's attendance decline in recent years can largely be attributed to the team's poor on ice performance the fact that the Red Wings facility, The Olympia, is located in a ghetto area also tends to discourage attendance.[2] Similarily, the W.H.A.'s Cleveland Crusaders were forced to shift their operations to St. Paul at the conclusion of the 1975-76 schedule despite the fact that they were reasonably competitive and operated out of one of the world's truly outstanding hockey facilities, the Cleveland Coliseum, which features amongst other things 18,000 seats for hockey, on site color television screens, and a restaurant for season ticket subscribers.[3] Unfortunately despite the magnificence of the structure itself the Coliseum is located some twenty-five miles outside of Cleveland and has serious parking problems that undoubtedly contributed to the low attendance.[4] The San Diego Mariners of the W.H.A. have recently also complained that poor management and lack of proper maintenance in their arena is adversely effecting attendance.[5]

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[2] Don Ramsey, "Red Wings Face Losses of $1 million", Toronto Globe and Mail, Oct. 30, 1976, page 50.

C. Sufficient Financial Resources

Major league hockey firms situated in imperfect but adequate markets that possess teams of poor caliber must have sufficient financial resources to absorb heavy losses until such time that they can assemble a more competitive product. Moreover, even teams that show a net profit at the end of the season often run into cash flow problems in the course of the season because the heaviest fixed costs are absorbed at the commencement of the season while revenues are generated over a longer period of time.

Expansion franchises are particularly susceptible to financial difficulties in their first few seasons as not only do they invariably have uncompetitive squads because few top quality athletes are made available to them via the expansion draft, but these new firms also labour under substantial long term debt in the form of their arena construction costs (if they own their own facility) and franchise fee. The N.H.L. and W.H.A. charge $6 million and $1.6 million respectively for franchises while a top flight facility costs approximately $15 million.[6]

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[3] "New Cleveland Coliseum Set to Handle 18,000 Hockey Fans", The Hockey News, Nov. 1, 1974, page 28.
[4] Wayne Overland, "Give Me Russia Before Cleveland!", The Hockey Digest, April 1975, page 92.
[5] Doug McConnel, "Kroc Threatens to Shift Mariners Out Unless Stadium Manager is Removed!", The Hockey News, Dec. 22, 1976, page 22.

D. Development of an Organization Capable of Perpetuating Legitmate Contender Status in the Long Run

As has been previously demonstrated the profitability of major league hockey firms located in imperfect markets is closely related to in-person attendance and in-person auxiliarly attendance revenues which are in turn heavily dependent on the competiveness of the team. Furthermore, high demand for major league hockey contests (capacity attendances in conjunction with high ticket prices) does not apparently exist in imperfect markets until the home team is regarded as being a strong contender for the league championship. Even in perfect markets profits are not maximized until legitimate contender status is achieved since legitimate contenders normally earn substantially greater playoff revenues than non contenders. Moreover, a major league hockey firm with a championship caliber team is in a much stronger bargaining position with respect to the negotiation of local television contracts because demand for its product is higher. Chicago, once second only to Boston amongst the American based N.H.L. clubs with regards to the number of its games televised locally, has been unable to negotiate a new television contract as their games' ratings have dropped since the club has fallen out of real championship contention.[7]

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[6] Alan Richman, "Total Insanity in the Sports World", The Montreal Star, March 12, 1976, page B-2.

Assuming that the primary goal of a major league hockey firm's ownership is profit maximization possession of any caliber of team less than a legitimate contender leads to suboptimization. Indeed, even if profits are a secondary objective and psychic satisfaction is the primary goal as many owners claim when financial questions are directed towards them, they cannot optimize psychic satisfaction either until they establish a championship contender.

Thus development of a legitimate contender is essential in order for a major league hockey firm's ownership to attain its objectives whether they are oriented more towards profit maximization or psychic satifaction. Consequently, the final prerequisite to the successful operation of a major league hockey franchise is the development of an organization that is capable of assembling and maintaining a team of legitimate contender caliber in the long run.

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[7] Bob Verdi, "Hawks TV Package In Danger As Costs Soar While Club Dips", The Hockey News, Jan 24, 1975, page 6.
Bob Verdi, "Fan Drop Worries Clarke", The Hockey News, Dec. 10, 1976, page 10.

In theory if every firm within a league possessed equally astute management in conjunction with an adequate facility and market, competition within the circuit might be equalized to the extent that every club would be a legitimate contender. However, for two reasons this has never happened in the past and is unlikely to occur in the future.

First, all markets are not equal in that at least four W.H.A. firms Houston, San Diego, Phoenix and Minnesota (located in St. Paul) and two N.H.L. clubs Cleveland and Denver are situated in inadequate markets. The only hope these teams have of remaining viable is to cut their operating costs to a minimum in order to reduce their losses and ride out the storm until such time that the market does develop into an adequate one through exposure to the game. Unfortunately, firms in this situation are unable to develop any great degree of relative product differentiation or fan appeal because they are unable to afford superior players.[8]

Second, and more importantly there is a wide disparity between clubs with respect to the quantity and quality of the human resources employed within each organization. In practice people's aptitude for evaluating talent and establishing organizations does vary markedly between individuals. Or as Punch Imlach the astute general manager of the Buffalo Sabres once put it, "If you gave everybody in the Maple Leaf Gardens $1,000, locked the doors, and came back in six months, a dozen people would have all the money." Imlach went on to note that if the experiment was repeated the same dozen people would become rich and the others penniless.[9] Thus even when the N.H.L. had only six clubs and all six had strong enough markets to fill their arenas, some firms (Montreal, Toronto and Detroit) were far more successfull both artistically and financially than others (the New York Rangers and Boston Bruins).

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[8] Doug McConnel, "Phoenix Drops Ice Stars to Keep Hockey Alive", The Hockey News, Oct. 29, 1976, page 27.

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[9] Wayne Overland, "The Rich Get Richer, Poor Get Poorer", Edmonton Journal, Dec. 24, 1975.

II. Critical Functions of a Major League Hockey Organization

Five critical functions must be performed by its organization if a hockey firm is to be successful in the long run. It must be able to evaluate talent, develop and optimize the skills of the athletes under contract to the organization, market its product and maintain equity within itself.

A. Evaluation of Talent

The successful evaluation of playing talent is heavily dependent on the quality and quantity of the human resources at the organization's disposal. A scouting report is only as good as the man who wrote it. However, it is often useful to utilize syneregy in making a decision on a particular player, by acquiring a diversity of knowledgeable opinions on his capabilities in order to isolate areas of conflict that can later be reevaluated more thoroughly and lead to a more accurate appraisal of his strengths and weaknesses. Since talent evaluation is concerned with assessing the ability of players in the amateur feeder systems and on other professional teams, as well as those individuals already under contract to the parent club, delegation of responsibility is essential with regards to this function because sheer physical distance precludes any one individual from being able to exercise tight control over it by scouting all professional and amateur leagues.

1. Evaluation of Player Inputs Under Contract to the Parent Club

The evaluation of playing talent on a firm's major and minor league rosters is generally performed by the coaches of the respective teams in conjuction with the general manager and the director of player personnel. The primary purpose behind periodic assessment of the players under contract is that it pinpoints positions where improvement is required, thereby facilitating long run planning with respect to player acquisition priorities. In addition, accurate early assessment of its players' capabilities allows a team to optimize their salvage value if they are found to be wanting in some vital area of expertise. For instance, the Montreal Canadiens selected Dave Gardner eighth overall in the 1972 draft but after deciding that he could not help their club sufficiently to warrant retaining his services traded him to St. Louis during the 1973-74 season for a 1974 first round draft choice which became Doug Riseborough, currently a regular on the Canadiens roster.[10] On the other hand, incorrect evaluation of the player inputs within the organization can have a disastrous effect on a club's long run competitiveness. For instance, the Boston Bruins at one time had such top flight hockey players as: Rick MacLeish, Jim Lorentz, Reg Leach, Chris Oddlieffson, Richard Leduc, Ivan Boldriev and Dan Bouchard in their organization, but either traded them away or lost them in the expansion draft. Similarly, the New York Rangers traded away: Mike Murphy, Bob MacMillan, Andre Dupont, Don Luce and Tom Williams before providing them with an adequate opportunity to establish their credentials.

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[10] 1976-77 N.H.L. Guide, page 368.

2. Evaluation of Other Professional Clubs

Player Inputs

Evaluation of the playing talent on other major and minor league rosters is absolutely essential if significant gains in a club's supply of talent are to be made via the trade route. Unless another firm is either attempting to reduce overhead by trading players with large contracts or is unloading individuals that it considers to be discipline problems; the only way to gain a substantial advantage in a trade is to introduce a greater degree of uncertainty into the transaction by trading for athletes that for one reason or another have not yet attained their full level of professional maturity. Only good scouting can reduce the uncertainty involved in this type of transaction to the point where it becomes acceptable.

The other purpose in scouting the opposing clubs extensively is to aid the major league coach in devising strategies that will provide his team with a competitive advantage. The eighty game regular season schedule is now spread over seven months of the year and it is not uncommon for two teams to not play one another for over a month. The major league coach must be kept abreast of any new developments with respect to the other club that may have occurred in the interim such as new line combinations or changes in its offensive or defensive systems. Information on these items will enable the major league coach to adjust his game plan accordingly.

3. Evaluation of Talent in the Amateur Feeder System

Major league hockey firms devote more company resources towards the scouting of amateur hockey players than any other type of player evaluation. The N.H.L. operated Central Scouting Service costs the league $375,000 annually while many teams also invest an additional $200,000 on their own scouting networks.[11] The amateur feeder systems are given a high priority with regards to evaluation of their player outputs because they are the best source of high quality talent.

As has been previously noted in the section on player acquisition techniques, relatively few top quality players are ever traded without something of approximately equal value being received in exchange, making it difficult to get ahead on a player transaction. In addition, only a limited number of athletes in each league become free agents every year and a firm must have the negotiation rights to these individuals before it may enter into a contractural relationship with them according to the by-laws of both the W.H.A. and N.H.L.. Moreover, since North American professional clubs are also now more aware of Europe as a talent source and draft the best young prospects from Sweden, Finland and West Germany it is difficult to develop a competitive advantage in this region. Thus the member firms of hockey's two cartels are forced to work primarily through the draft with respect to increasing the competitiveness of their hockey teams. The following analysis will attempt to describe how the draft can best be utilized in developing a legitimate contender.

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[11] "Scouts Lose Jobs", The Hockey News, Dec. 19, 1975, page 2.

(i). Number of Scouts Required

Due to geographical distance as well as time constraints, scouting staffs must be split amongst the various feeder systems in order to do a thorough job of player evaluation. The productivity of each feeder system and where it fits into the firm's drafting strategy has to be considered when the decision is made as to how many full time scouts should be assigned to each feeder system.

(a) The Major Junior Leagues

Major Junior A hockey is unquestionably the primary source of top flight major league hockey players, as has been demonstrated in the draft analysis section.[12] Consequently, the primary impetus of a major league hockey firm's amateur scouting should be directed at these feeder systems.

At the present time there are thirty-four Major Junior A teams, ten in the Quebec League and twelve each in the O.H.A. and W.C.H.L.. On average a half dozen players on every team are of draftable age in any given year. Thus the scouting staff is reponsible for evaluating the professional potential of slightly over two hundred prospects from these feeder systems annually. However, this task is made easier by the fact that a large percentage of the players reaching draft age lack professional potential and can be quickly dismissed as potential pros. Scouts can easily further reduce the set of individuals with professional potential down to approximately forty athletes in both the O.H.A. and another forty in the W.C.H.L. with little fear of overlooking anyone. The number of professional prospects from the Quebec League is invariably even smaller as it lacks the depth of either the O.H.A. or W.C.H.L., there rarely being more than ten hockey players from this circuit worthy of even cursory consideration.

Each of the better Junior A clubs should be observed at least fifteen times to ensure that the athletes are evaluated under as many different conditions as possible.[13] Assuming that eight teams in the O.H.A. and the same number in the W.C.H.L. have enough prospects on them every year to warrant this amount of attention one hundred and twenty games would have to be observed to cover these clubs adequately. In addition the clubs with less talented prospects would also have to be scouted at least five times each. Thus in order to do a thorough analysis one hundred and sixty hockey games per year must be observed in both the O.H.A. and W.C.H.L.. Due to the smaller number of top prospects in the circuit considerably fewer Quebec League games would have to be observed, thirty or forty games being enough to cover the circuit in depth.

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[12] Supra. pages 122-134.

The Major Junior A hockey schedule commences in the last week of September and including playoffs lasts until May, a period of some thirty weeks.[14] A diligent full time scout should be able to take in at least six games a week over the course of the season. Consequently, one full time scout in the O.H.A. and another in the W.C.H.L. working in conjunction with the director of player personnel and a part time scout in the Quebec League should be able to do a thorough job of scouting the Junior A circuits. The part time Quebec League scout would screen the best prospects for the director of player personnel and the O.H.A. scout to observe.

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[13] Personal interview with Ron Caron, Assistant General Manager and Chief Scout, Montreal Canadiens, Nov. 18, 1975.
[14] 1976-77 W.C.H.L. Guide, pages 195-200.

(b) The American Colleges

While they do not yield the breadth and depth of talent of the Canadian Major Junior A circuits, the American colleges cannot be lightly disregarded as sources of major league talent. The six drafts between 1969 and 1974 yielded five American college players who became professionals of I or II stature and eleven of III caliber.[15] Moreover, these players are often still available in the later rounds of the draft. All five of the I and II caliber hockey players entering the professional ranks from the American Colleges were taken in the fourth round of the N.H.L. draft or later.

Although one hundred and sixty American colleges now compete in hockey, the vast majority of the professional talent comes from the ten colleges comprising the Western Collegiate Hockey Association (W.C.H.A.).[16] Four of the five I and II caliber and ten of the eleven III caliber professional hockey players coming from American colleges played in this ten team league. The other American collegiate league that has developed some good professionals is the seventeen team Eastern Collegiate Athletic Conference (E.C.H.A.). However, if scouting resources are to be optimally allocated emphasis must be placed on scouting the W.C.H.A. due to its superior record with respect to the development of professional caliber hockey players. Consequently, one full time scout operating primarily out of the W.C.H.A. with assistance from a part time scout in the E.C.H.A to screen that league should be able to effectively cover the American colleges. N.H.L. clubs can also utilize the services of the C.S.S. in screening other American colleges for potential prospects.

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[15] Supra. page 129.

[16] J. Greenfield, "The Iceman Arriveth: Hockey is the Game of the 70's", Esquire, Oct. 74, page 160.

(c) European Scouting

The evidence presented on page 128 of this text dealing with the potential of the European hockey leagues as sources of professional hockey players indicates that these feeder systems have in the past been under emphasized. They have produced more top quality talent than some other more heavily scouted leagues, notably the Quebec junior circuit.[17] However, due to the fact that the acquisition costs associated with signing European players are higher than those of North American players, Europeans must be of higher caliber (at least II's) to make their signing worthwhile. Any major league hockey firm signing a European hockey player is required to pay the Ice Hockey Federation in the athlete's native land $40,000 in compensation monies. Nevertheless the supply of top quality players (three of I caliber) coming out of the European feeder system has been large enough to warrant further resources being expended in this area. Furthermore, the fact that quality European athletes are still available in the later rounds of the draft would appear to justify the hiring of a full time European scout.

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[17] Supra. pages 129-30.

(d) Tier II and Senior Circuits

Since Tier II and Senior Hockey have produced only three players of I or II caliber in the six drafts between 1969 and 1974, employing a full time scout to evaluate these feeder systems would probably constitute a waste of company resources.[16] However, these sources of talent can probably still be adequately covered by N.H.L. clubs through utilization of the C.S.S. as a screening device. W.H.A. firms, who do not have access to the information supplied by the C.S.S., could most efficiently employ part time scouts to do their screening and isolate the best products.

(e) Scouting System Personnel Requirements

Thus in order to do a truly thorough job of scouting the amateur feeder systems a major league hockey firm requires a director of player personnel to oversee the scouting operation as well as two full time scouts and one part time to cover the Major Junior A Leagues, one full time and a part time scout to evaluate the American colleges and one full time European scout. Canadian University hockey can be covered by the Major Junior scouting staff. If the major league hockey firm does not have access to C.S.S. reports it might also require the services of one or two additional scouts on a part time basis.

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[16] Supra. pages 122-130.

The fact that in player evaluation the quality of the scouting reports and not their quantity is the critical factor should not be lost in this discussion of the personnel requirements of an effective scouting system. Without a capable, qualified and diligent staff no scouting system can be effective.

(ii). Scouting Philosophy

The amount of talent possessed by an individual athlete is determined by two factors; his physical ability and his attitude. Physical ability refers to the athlete's possession of sufficient desirable physical traits such as size, strength, durability, speed and overall skill to enable him to perform at a high level of competence, while attitude is defined as the degree to which the athlete is self motivated to utilize his physical ability to the greatest extent possible. Any evaluation of an amateur hockey player's professional potential of necessity must commence with his physical ability; without being relatively well endowed with desirable physical attributes he is unlikely to become more than a marginal professional player regardless of how much desire he possesses. On the other hand, individuals with physical ability but lacking the proper attitude are also doomed to failure in the professional ranks because the two must be present in conjunction with one another. However, physical ability has to take precedence over attitude in reducing the set of amateur prospects to workable numbers. Attitude should then come into play in further reducing this set to those individuals who have demonstrated that they possess a sufficient amount of both ingredients.

A large proportion of the IV's and V's selected in the N.H.L. draft's first two rounds have had their failure to succeed in the major leagues attributed more towards their attitude than their lack of physical ability, but on the other hand the vast majority of the I, II and III stature players are chosen within the first three rounds of the N.H.L. draft.[19] Thus it appears that the professional scouts experience relatively little difficulty in isolating the top fifty or sixty professional prospects according to their physical ability but have been less successful in reducing errors in evaluation that occur as a result of psychological factors. This fact underlines the importance of acquiring as complete a picture as possible with respect to a player's personality, goals, attitudes, aspirations and life style as well as his skill level on the ice.

To the extent that some players have prejudices with regards to the league or type of team with which they would prefer to enter into a contractural agreement their availability has to be examined as well as their attitude and ability. For example, Tom Lysiak was widely regarded as second only to Denis Potvin as a professional prospect in the 1973 draft and the then Stanley Cup champion Montreal Canadiens owned the second choice in the draft. Lysiak let it be known that he did not wish to sign with a league powerhouse as he wanted an opportunity to play in the major leagues immediately and flatly stated that he would sign with a W.H.A. club if drafted by Montreal. Consequently, Montreal traded his rights to Atlanta.[20] Similarly, as a result of the mystique it has built up over the years through decades of tradition and Hockey Night in Canada broadcasts many Canadian junior players have a strong preference for the N.H.L. over the W.H.A. to the point that they reject more lucrative W.H.A. offers to sign with N.H.L. firms.[21]

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[19] Supra. pages 134-42.

(iii). Development of Efficiency within the Scouting System

The crucial factor in developing an efficient scouting system, that is one that has a high success rate and relatively low failure rate within the first three rounds of the draft, and is able to select the occasional II or III caliber player in the draft's later rounds, is the quality of the resource people performing the player evaluation function. However, formulation of a drafting strategy based on a probabilistic understanding of the player market has the potential to assist these persons in making optimal use of the firm's draft choices.

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[20] Hal Bock, "How Hockeys Godfather Keeps the Canadiens on Top", Hockey Sports Stars of 1974, pages 18-19.

[21] Jack McCarthy, "Savard Inks Boston Contract", The Hockey News, July 1973, page 18.
Tony Petrella, "Lysiak Admits N.H.L. Strange ", The Hockey News, July 1973, page 15.
Harry Klaff, "Islanders Shell Out $500,000 to Sign Denis Potvin", The Hockey News, July 1973, page 14.

Standards for each position with respect to size, skill level, aggressiveness and feeder system should be developed and used as guides to the assessment of professional potential. It is pointless to insist on dogmatically rigid standards as the real art of scouting involves detecting the exceptions to the rule, those individuals that defy the standards to become fine professionals. However, the adoption of standards provides a means of comparison that can assist the scouting staff in determining whether or not strength in one part of a hockey player's game can compensate for weaknesses in another area. If the scouting staff is more aware that a well regarded prospect violates the standard it will perhaps tend to more closely examine him and thereby further reduce errors in player evaluation.

(iv). Suggested Drafting Guidelines

(a). Size and Amateur Scoring Indicators

Defencemen - Defencemen should be approximately six feet or more in height, weigh at least one hundred and ninety pounds and have accumulated at least .70 points per game in their last year of Major Junior A hockey if they have seen regular service.

Centers - The minimal acceptable size for a center prospect is one hundred and sixty-five pounds. In addition prospects should be exceptionally skillful, scoring at approximately a point and a half per game pace in their last year of amateur hockey.

Wingers - The minimal size for an amateur wing prospect is approximately one hundred and seventy pounds if he is a good amateur scorer, but higher (one hundred and eighty pounds or more) if he is a less skillful individual relying more on toughness and determination.In addition, a prospect from a Major Junior feeder system should score at least .80 points per game if he has been playing regularly.

Goaltenders - There are no discernable physical standards for goaltenders as the position does not require size or strength as much as it does quickness, instant reflexes, anticipation and knowledge of the angles. Top goaltenders consequently come in all sizes from Rogatien Vachon (5'7", 160 pounds) to Ken Dryden (6'4", 210 pounds).

(b). Feeder Systems

Draft Selection Positions 1-36

The first few rounds of the draft, unless there is truly outstanding prospect in another feeder system, should be utilized to select Major Junior A graduates. Not only do they usually possess the most talent but they make the smoothest transition to the professional ranks, requiring less adjustment time than individuals from other feeder systems as they are already accustomed to a professional style of play. However, only the cream of the Quebec junior graduates should be chosen as the league appears to lack a depth of talent. Moreover, in particular defencemen from this circuit, should generally be avoided as the probability of their developing into quality professional players is extremely low.

Draft Selection Positions 37-72

The third and fourth rounds of the draft should be utilized to select the better prospects not yet chosen from the Major Junior A ranks and the more accomplished college players from the Canadian and American colleges. Particular attention should be given to drafting goaltenders on these rounds as they are more difficult to evaluate.

Draft Selection Positions 73 to the Conclusion of the Draft

Due to the relative ease with which a hockey player's physical ability can be evaluated, few individuals of II or better caliber emerge from the draft's later rounds. Where later round draft choices do develop into competent professional hockey players the evaluation of their physical ability as amateurs was most often clouded by extenuating circumstances. For example Orest Kindrachuk, the Philadelphia Flyers' center, was not drafted at all but is a II caliber professional hockey player. Kindrachuk did not play Major Junior hockey during his draft year as a result of a personality conflict with his coach, playing collegiate hockey at the University of Saskatchewan instead which was not as heavily scouted at that time. Similarly, Peter Sullivan and Gary Howatt were bypassed until later in the draft due to health problems. Sullivan had a rare disease that sapped his strength in his draft year while Howatt is a diabetic.

Thus those individuals who are drafted late and develop into II caliber professional hockey players do not play two or more years as mediocre regulars on Tier I Junior A teams and then suddenly blossom into competent major league hockey players. Rather, they are athletes who for some reason were not able to demonstrate the full range of their talent prior to their draft year. Either they received little ice time as a result of a factor unrelated to their ability such as an injury or a personality conflict with their coach or they played in an obscure league (Tier II, college, or European hockey) or were goaltenders.

Consequently, in order to select an individual later in the draft who becomes a solid major league professional performer a scout must either locate him on a team that is not heavily scouted, or know that the athlete for some reason (health, ice time) is not performing up to his full capabilities. Since it is extremely difficult to measure the physical ability of someone receiving limited ice time it may be wise for scouting staffs to develop tests of athletic ability that can be administered during practices such as those employed by the National Football League scouting combines to evaluate potential professional football players. At the present time the only physical characteristics of hockey players that are measured outside of a game situation are their heights and weights. In addition to possibly detecting more "sleepers" in this manner development of a sophisticated system of testing hockey players' physical skill level could facilitate comparison between individuals from different feeder systems who are regarded as possessing nearly equal ability under game conditions. Moreover, these tests would enable scouts to more readily evaluate if certain players are either rapidly improving their hockey skills or have reached a plateau.

In summary the probability of choosing a II or even a III caliber professional hockey player later than the fourth round of the N.H.L. draft is extremely low and the individuals chosen this late that have produced in the professional ranks have by and large been restricted from demonstrating their full potential during their amateur careers by some extenuating circumstance. Consequently, firms should avoid selecting mediocre amateur players who have had ample opportunity to demonstrate their capabilities in these rounds and concentrate on choosing the best physical specimens available regardless of where they played or how much ice time they received. Particular attention should be accorded European hockey players at this stage of the draft because Europe is less extensively scouted than the North American feeder systems. Moreover, the $40,000 fee charged by the European ice hockey federations is not as much a problem as it first appears as the athlete can be left in the European feeder system to develop and prove himself in international competition before he is offered a professional contract. Goaltenders are also good players to select in the later stages of the draft as they are much more difficult to evaluate than individuals playing any other position.

(v). Management's Role in Assisting Drafting Effectiveness

Regardless of how rationalized a major league hockey firm's scouting system becomes the relative ease with which the best professional prospects can be delineated places severe limitations on its effectiveness. The probability of acquiring I and II caliber hockey players later than the first few rounds of the draft is so low that any long run player acquistion policy premised on the selection of "sleepers" in the later rounds of the draft is doomed to failure.

Management, to ensure the effectiveness of a draft-oriented player acquisition policy, has to acquire additional early draft choices. Moreover, the earlier the draft choices the more effective the player acquisition policy since not only are the superior players selected earlier but uncertainty is greatly reduced by possessing earlier draft choices. Seventeen of the twenty-seven I's entering professional hockey between the 1969 and 1974 drafts were amongst the first ten players chosen in their draft year.[22] Furthermore, the success rate for the first five players selected in the draft each year over the same time period is .700 and the failure rate only .166, illustrating that uncertainty is greatly reduced in the very early portions of the draft even though many of the teams drafting early were placed in that position by their poor drafting efficiency.[23]

The key to successful utilization of the draft mechanism is to rationalize the scouting system to its utmost and acquire additional early draft choices. Unfortunately, a problem arises in that not all firms possess an excess of talent that can bartered for draft selections. However, this difficulty can be overcome if management adopts a long run outlook oriented towards assembling a legitimate contender over a two or three year time period rather than towards short run goals such as winning the next few games or making the playoffs. If the firm is a profit maximizer located in an imperfect market, legitimate contender status is the goal it will logically strive for since profits are only maximized when the team becomes legitimized as a championship contender.

Upon adopting a long run outlook management must critically assess the talent it has under contract and determine which individuals fit into the firm's long run plans. All hockey players of III or lower caliber who are not upwardly mobile, that is possess the potential to reach I or II stature, as well those players of II or better caliber who are thirty years of age or more are expendable.

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[22] Supra. pages 134-35.
[23] Supra. page 151.

The aforementioned players must then be bartered for additional first and second round draft choices that will, if the scouting function is well rationalized, materialize into I and II caliber players. Moreover, an efficient scouting system will also yield a limited number of III and possibly II stature players from the later rounds of the draft that can also be utilized as currency in further transactions. Those draft choices who do not appear to be developing into professional players of at least II caliber, after a sufficiently long incubation period in which they have been provided with ample opportunity to attain their professional level of competence, should then be dealt for more draft choices while their salvage value is still relatively high. Their own club should be able to determine whether or not they are going to succeed before any other firm in the industry does, if its internal player evaluation function is operating properly. In addition, the veteran players supplanted by the incoming draft choices would also become expendable and be dealt for more draft choices. Thus the process becomes cyclical with draft choices constantly replacing veterans who are in turn exchanged for the draft choices that eventually replace the young players who originally displaced the veterans.

(a). "Trading Up" Draft Choices

Due to the fact that the majority of the I caliber players are taken extremely early in the draft, management should attempt to "trade up" in order to ensure itself of the earliest possible draft choices. "Trading up" can best be illustrated by an example. Prior to the 1975 draft Keith Allen the Philadelphia Flyers general manager traded his own 1975 first round draft choice as well as Don McLean, a minor league defenceman of limited ability, and Bill Clement a fourth line forward on the Flyers major league roster to the Washington Capitals for their first round draft choice, the first selection in the entire 1975 draft.[24] The Flyers chose Mel Bridgeman, an athlete currently performing at a II level with the potential to achieve I stature, with Washington's draft choice. Thus by making this transaction Allen gave up a III and a IV caliber player (Clement and McLean respectively) and a first round draft choice to acquire an opportunity at an athlete of potentially I stature. It should be noted that the probability of the Capitals selecting a I caliber player with the Flyers choice (18th overall) was extremely low while Philadelphia was virtually assured of being able to select an individual of at least II stature.

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[24] 1976-77 N.H.L. Guide, page 337.

Possession of an efficient scouting system also allows firms to reduce uncertainty and improve their chances of selecting an individual of II caliber by trading mediocre players selected in the draft's later rounds for higher draft choices. For instance, the Montreal Canadiens drafted Rick Wilson, a III caliber professional hockey player, sixty-sixth overall in the 1970 amateur draft. Wilson, after two years of seasoning in the minor leagues, was traded with Montreal's fifth choice in the 1974 draft to the St. Louis Blues for their fourth round choice in the same draft and Glen Sather, a veteran journeyman. Sather, after a year of service with Canadiens, was dealt to Minnesota for cash and the North Stars third round draft choice in 1977.[25]

Once management succeeds in assembling a legitimate contender it can afford to become more selective with respect to the quality of the younger players it acquires as it is not uncommon for I and II caliber major league hockey players to perform effectively for ten to fifteen years. Nevertheless, management must endeavour to replace its older players regularly in order to maintain the team's championship contender status. Otherwise, key players lose their effectiveness at the same time making it difficult to procure sufficient replacements without falling out of contention and losing in-person attendance revenues from both regular season and playoff games.

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[25] _1976-77_ _N.H.L._ _Guide_, pages 532, 581.

For example, the New York Ranger organization, by developing a strong farm system when the sponsorship system still existed, built a fine contending team that was an N.H.L. power in the late sixties and early seventies. However, the team was out of contention by the 1974-75 season largely because the squad got older without replenishing itself with young legs. Moreover, this ageing process was accelerated by the Ranger management's policy of trading the better young prospects within their farm system for veteran players. Mike Murphy, Tom Williams, Andre Dupont, Syl Apps and Don Luce were all traded in this fashion.[26]

Obviously, if every management in major league hockey adopted a long run outlook the aforementioned building strategy could not be implemented because no one would relinquish their draft choices. However, a large number of general managers in professional hockey are oriented more towards short run, immediate goals than to the long run goal of acquiring legitimate contender status. The Los Angeles Kings for example have retained their first round draft choice on only one occasion since the amateur draft began in its present form in 1969. The Kings selected Tim Young sixteenth overall in the 1975 draft and promptly traded him to the Minnesota North Stars for a second round choice in the 1976 draft.[27] Furthermore, there is a strong tendency on the part of many managers to accept mediocre to good players in exchange for their high draft choices rather than risk the uncertainty of the drafting procedure; even though the degree of risk involved in drafting players particularly within the first round is quite acceptable if the scouting system is efficient.[28]

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[26] 1976-77 N.H.L. Guide, pages 300, 356, 444, 483, 579.

B. The Optimization and Development of Talent

1. Optimization of Talent

The optimization of the on ice performance of a major league hockey team is largely the responsibility of the major league coach. His duties are essentially five fold.

First, he must institute a style of play that will exploit the abilities of the athletes under him to their utmost. For example, a coach with a squad possessing a number of small fast forwards would probably adopt a different approach to the game than one who has a bigger, more physical roster.

Second, the coach needs to be a shrewd evaluator of talent in order to inform management as to the nature of his personnel requirements. Moreover, he should be constantly comparing the player inputs on the major league roster to those in the development system.

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[27] 1976-77 N.H.L. Guide, page 584.
[28] Supra. pages 135-39.

Third, an individual coaching a team that relies on the draft for its player inputs must possess sufficient patience and understanding to work with younger players and ease their transition into the professional ranks. Thus he requires the ability to teach fundamentals and communicate with younger athletes.

Fourth, although hockey is a relatively simple game from a strategic standpoint the coach is still vital to success because where two teams are evenly matched with respect to talent his manipulation of personnel in key situations can tip the balance in favour of one squad or the other. Indeed this narrow margin of victory or defeat is responsible for much of the public's fascination with the whole spectrum of competitive athletics.

Fifth, and probably most importantly, the coach is responsible for maintaining harmony amongst a group of some twenty people of varying interests and backgrounds over an eight month season. Major league hockey players spend a considerable amount of time in one another's company, literally living together for long periods of time in the course of the season, as some road trips can last two or even three weeks. Living at close quarters such as this for an extended period of time can cause disagreements and misunderstandings that are potentially dysfunctional if not dealt with quickly and fairly.

Furthermore, the incentive clauses within his Standard

Player Contract often constitutes a considerable portion of a professional athlete's salary. Consequently, dissatisfaction tends to develop if some players are not receiving regular ice time as it effects their opportunities of collecting from the incentive clauses in their contracts. Thus the coach's distribution of ice time is also crucial to team harmony as it must be done without affecting overall team performance in a negative fashion.

2. Development of Talent

The benefits of a minor league apprenticeship prior to the commencement of a major league career have probably been vastly overrated as witnessed by the fact that the better Major Junior "A" hockey players make the transition to major league hockey with relatively little difficulty.[29] Moreover, many of individuals would probably have progressed even more rapidly if their ice time were not initially restricted by coaches and managers concerned over these athletes' lack of experience.

Nevertheless, a minor league development system does perform certain useful functions for the major league operation. A minor league affiliate can be useful in acclimatizing individuals who lack confidence in their own ability or are unused to a professional style of play to professional hockey without subjecting them to undue pressure from fans or media. Second, in situations where a contending major league hockey club has more competent major league caliber athletes than spots on the major league roster it can store a younger player on the minor league affiliate until such time as an opening appears on the major league squad, the player is traded to another club, or he fulfills his contractural obligations and jumps to the other league. It should be noted, however, that due to the level of competition experienced in instances such as this the player is probably able to only marginally improve his hockey skills and there is the danger that they may in fact atrophy.

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[29] Supra. pages 150-54.

Third, the availability of qualified replacements within the organization has a strong motivating effect on the major league club's personnel as they realize that they can and will be replaced should they become complacent.[30] The value of a strong farm system as a goad to the major league roster is probably largely confined to athletes of average or marginal ability as superstars are not only less easy to replace but are more inclined to be self motivated.

Fourth, the fact that a major league club has several openings on its minor league affiliate can provide a competitive advantage with respect to the recruitment of young players especially if the development system has a good record for producing major leaguers.[31] The players are aware that if they are unable to crack the starting lineup immediately they will still have an excellent opportunity to develop their hockey skill sufficiently to eventually make the majors.

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[30] Gary Ronberg, "Flashing Blades For a Mini Master Mind", Sports Illustrated, March 2, 1970, page 20.

Time spent in the minors can be extremely beneficial to some individuals selected later in the draft with physical ability whose development in the amateur feeder system was retarded as a result of extenuating circumstances such as injury, poor coaching or personality conflicts with their amateur coaches. Good coaching in the fundamentals at the minor league level can often allow these individuals to achieve their potential. However, it should be noted that the degree of success achieved in developing low draft choices into competent major league hockey players is to a large extent a function of the amateur scouting system's efficiency. The scouting system detects and selects individuals with raw, untapped, physical ability and desire that is later refined by the development system. Even a superior development system cannot turn an athlete lacking at least an adequate supply of physical skills into a competent major leaguer. Furthermore, because most of the athletes developed in this manner are of no more than marginal quality their primary use to the major league hockey firm is as currency in transactions for either draft choices or better player inputs in multi player exchanges.

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[31] Personal Interview, Mr. William MacFarlane, Feb. 16, 1976.

Finally, the minor league affiliate lends depth to the major league squad. When injuries occur on the major league roster individuals from the farm club can be called up as replacements.

C. Major League Hockey and the Marketing Function

A large proportion of the administrative staff employed by most major league hockey firms are concerned solely with the distribution and marketing of the product. The underlying goal behind this marketing effort is to sell a large percentage of the facility's seating capacity on a seasonal basis.

These season ticket sales are critical to the long run viability and profitability of the firm for essentially five reasons. First, the sale of large numbers of seats on a seasonal basis creates a snowball effect in that it encourages more people to purchase season tickets in order to ensure themselves of good seats. Second, a firm with a large number of season tickets holders can more easily raise ticket prices as demand for its product is relatively high. Third, the prospect of increased television revenues improves when the facility is sold out on a seasonal basis as no further in-person attendance revenues can be garnered except by increasing ticket prices. Fourth, when a large proportion of the season ticket holders are corporations they more likely to renew their subscriptions than private subscribers if the team is relatively uncompetitive. Fifth, and finally, a strong season ticket base can eliminate a major league hockey firm's cash flow problems because the season ticket holders renew their subscriptions prior to the commencement of the season, infusing a large stream of capital into the firm when it experiences its heaviest expenditures.

1. Promotion and the Marketing Effort

The central element to most major league hockey marketing efforts is the promotion, an attempt primarily through bait advertising devices such as prize give aways and ticket discounting to develop fan awareness and interest. Another technique also utilized in promotion is the hockey clinic usually conducted by management, coaches or players in an effort to develop the fans' familiarity with and appreciation of, the game of hockey.

Clinics concerned with instructing fans in the fundamental rules and strategies of the game are most important in those areas where a hockey environment is not present as major league hockey faces a tremendous awareness problem in these regions. The purpose behind these clinics is to both attract new fans and increase the game's entertainment value for the regular patrons by developing their knowledge of the game to the point where they can appreciate its more subtle aspects. However, difficulties arise with this type of promotion in that it reaches a relatively small audience and this audience is not necessarily the most desirable target market as the persons attending these clinics probably already have an interest in the game. Consequently, this type of promotion is limited with respect to converting other sport enthusiasts into hockey fans.

Prize giveaways have been found to be relatively effective in boosting attendance in the short run and are relatively inexpensive to operate since the prizes are usually donated by local businessmen who receive free advertising for their contribution. Unfortunately, without cooperation from the business community this type of promotion becomes unduly expensive and due to the length of the regular season it is difficult to enlist the aid of other businesses for more than a few games a year.

Ticket discounting, while it has a positive effect on attendance in the short run, generally does not significantly increase net in-person attendance revenues and can adversely effect attendance in the long run. Since tickets are given away or sold on a heavily discounted basis such as two for one the reduced margin per ticket ameliorates to a large extent any gain in revenues that might have been realized through increased attendance. Furthermore, ticket discounting can have adverse effects on long run attendance because the games with the least potential entertainment value are marked for the most discounting. Consequently, the fans attending these contests are often dissatisfied with the match's entertainment value. In addition it is difficult to establish product differentiation if the firm gives its product away. Moreover, little cognitive dissonance is aroused in a fan if after having received a free ticket to one contest he does not purchase another at a later date. However, if he had paid the full admission price for his first ticket a refusal to attend another game would be more inconsistent with his initial purchase.

Thus although promotion is probably necessary, especially in those regions lacking a strong hockey background, there are severe limitations to its effectiveness. Consequently, directing a large proportion of a major league hockey firm's budget towards the marketing end of the operation would probably constitute a misallocation of resources.

2. Marketing Benefits of Icing a Contending Team

Important tertiary benefits accrue to contending hockey teams with respect the marketing of their product. First, the perceived quality of the product and the utility associated with it increases significantly if the club wins a large percentage of its games. Second, as a result of its increased utility, demand for the product also accelerates. Third, a greater demand for the product encourages significantly greater media coverage which in turn has positive effects on awareness, familiarity and identification. Moreover, this media coverage is directed at exactly the target market the hockey firm wishes to reach in that sports enthusiasts are readily accessible via the sport pages and radio and television sports reports. Furthermore, this coverage is relatively inexpensive, being virtually a free good, as all the firm has to do is ensure that its management and team members are accessible to the media and perhaps employ a publicist to disseminate information to the media.

Fourth, increased media coverage serves to assist in further differentiating a firm's product in both an absolute and relative sense as the club becomes increasingly legitimized as "major league". Finally, due to the fact that several major league hockey firms are located in regions where the fans are somewhat unsophisticated the club must win, as the vicarious pleasure of winning rather than an appreciation of the game's more subtle intricacies represents the primary appeal of a contest.

D. Maintenance of Equity Within the Organization

Since the quality of the human resources employed by a major league hockey firm in terms of both its administrative and player personnel determines to a large extent the degree of financial success it will enjoy; the maintenance of equity within the organization is crucial to the firm's long term profitability. At the administrative level, so many of the functions that must be performed on an ongoing basis to perpetuate legitimate contender status in the long run are interrelated and mutually dependent that a dysfunction within one can have serious consequences on the others. Thus the organization's long run viability can be endangered by inequities within it that promote an increased turnover rate amongst qualified administrative personnel as a less than adequate performance in one area can adversely effect other functions in a fashion akin to a chain reaction. For example, if management incorrectly evaluates the playing personnel on the major league club the amateur scouting system is likely to concentrate its efforts in the wrong areas and qualified personnel in the farm system may be prematurely traded to other firms.

Similarly, disharmony or dissension resulting from inequities within the organization can have adverse effects on the team's cohesiveness and which can affect its ability to achieve an optimal group performance. The majority of dysfunctions at the team level are caused by five factors related to the nature of the business.

1. Optimization of Salvage Value with Respect to Star Players

The replacement of established veteran star players via the trade route when they are still relatively productive tends to arouse expressions of anger, frustration and disappointment amongst both the players themselves and the fans. However, in professional sport, where unlike other professions strong diminishing returns on individuals' productivity are often encountered past the age of thirty, management does not have the luxury of retiring its player inputs gracefully. Since the players' contracts represent one of the franchise's most important assets management has an obligation to optimize their salvage value by exchanging them for other assets such as draft choices, or younger player inputs prior to the point in time where their productivity experiences a significant decline.

2. Equitable Treatment of Non Roster Veterans

The treatment of non roster veterans is another potential source of internal problems on major league hockey clubs particularly legitimate contenders. Legitimate contenders generally possess an excess of talent, having athletes languishing on their bench who would be regulars on other clubs. This type of situation can rapidly produce dysfunctional consequences as professional athletes become frustrated when they are denied, through lack of ice time, the opportunity to both make a significant contribution towards team success and advance their careers by establishing their professional level of competence. Consequently, non roster veterans must either be eased into the starting lineup, exchanged for additional players or draft choices, or be persuaded to willingly accept their lot without complaint if team harmony is to be preserved. If these non roster veterans are not dealt with equitably, that is given an opportunity to play elsewhere if they are unable to contribute significantly to their present club, it can have serious repercussions on the recruitment of amateur players as well as create dissension within the major league organization. Amateur propects are often reluctant to enter into contractural arrangements with organizations where their career development might be hindered by a lack of ice time at the major league level.

3. Individual and Team Goal Congruence

Due largely to the business practice common within the industry, of rewarding players partially on an incentive basis, conflicts sometimes arise between individual and team goals. The majority of these incentive clauses in the Standard Player Contract (S.P.C.) call for the player to receive bonuses for his offensive production as measured by the number of goals or assists he collects. However, the existence of a reward system based primarily on individual offensive performance can have dysfunctional effects since players become upset if they are asked to perform defensive roles where their scoring opportunities will be more restricted even if the successful performance of these roles are critical to team success. Furthermore, unhealthy rivalries can develop for positions on the power play where the opportunities to accumulate points are greater.

It is management's responsibility to ensure through a process of negotiation with the player or his bargaining agent that the incentive system included in each player's (S.P.C.) is in accordance with his projected role on the club, thereby avoiding any conflict between individual and organizational goals. The difficulty in implementing such a system lies in the manner in which the athlete is evaluated to determine whether or not he is achieving the standards mutually agreed upon since to a large extent any evaluation of his total performance must be subjective in nature and as such requires exceptional trust in management's objectivity. It is a distrust of management's fairness under budgetary pressures (justified in many cases) that leads players and their representatives to insist on an incentive system based on relatively objective standards such as the number of goals or assists garnered. Without a reputation for fair dealing management has little hope of establishing an incentive system that ensures congruence between individual and team goals.

4. Preferential Treatment

Each player on a team is an individual with different interests, beliefs, objectives and physical abilities. Consequently, it is impossible to treat each team member in exactly the same manner. However, when a player or players receive or are perceived to receive special priveleges not accorded other team members dissatisfaction can occur. The key to avoiding such difficulties is to only grant preferential treatment in game situations and then only if it is in the best interests of team performance. For example, in order to optimize group performance a team's star players should receive more ice time than its journeymen and the former must also be allowed to operate the power play on a more regular basis than the less skillful individuals.

5. Routine Personality Conflicts

Since major league hockey players come from varying backgrounds, have different interests, work in close proximity to one another for eight months of the year, possess relatively little job security and work under constant pressure from both fans and media it is not unusual for personality conflicts to develop between team mates over the course of the season. Minor disagreements or differences of opinion occur relatively often and do not normally have a significant effect on team play. Unfortunately, if these conflicts are severe enough they can threaten the unity, cohesion and performance of a team.

Due to the variety and varying degrees of complexity involved in these conflict situations no hard and fast rules can be established with respect to their resolution as each case must be decided on its own merits. Consequently, the individual in charge of resolving the conflict must be in possession of considerable interpersonal relation skills, knowing when to interfere and when to let the disagreement settle itself and whether to utilize the velvet or iron hand if he does intercede.

III. Market and Facility Constraints on Management in the W.H.A. and N.H.L.

Unfortunately, several firms within the major league hockey industry have severe problems related to their markets and facilities that not only effectively constrain their managements from assembling contending teams and limit their profitability but indeed endanger their long run viability.

1. Inadequate Markets

Two N.H.L. franchises, Colorado and Cleveland, as well as four W.H.A. clubs: Phoenix, San Diego, Houston and Minnesota (located in Minneapolis - St. Paul) are apparently situated in markets that are unwilling to support major league hockey regardless of the club's competitiveness. Due to the high fixed costs associated with professional sports teams extremely large losses that are virtually impossible to absorb on a long run basis result from such a lack of interest.

For example, in the N.H.L. Cleveland and Colorado both of which are averaging under 6,000 paid admissions per game are expected to lose $1.5 million and $2.7 million respectively during the 1976-77 season.[32] Similarly, San Diego, Phoenix, Houston, and Minnesota in the W.H.A. are all averaging under 7,000 fans per game and are expected to lose well in excess of $500,000 each during the 1976-77 campaign. The important point is that two of these teams, San Diego and Houston, are extremely competitive the former leading its division in points and the latter participating in the A.V.C.O. Cup final series every year since the league's inception while the other two teams are in playoff contention. All of these franchises have relatively comfortable arenas although the San Diego Mariners and Phoenix Road Runners facilities are a trifle small at 13,039 and 12,600 seats respectively. Nevertheless, these firms seem incapable of approaching the break-even point in their present locations. Moreover, the situation is unlikely to improve markedly within the next several years as these regions are unfamiliar with the game of hockey having for the most part warm weather climates.

2. Substandard Facilities

Two N.H.L. clubs and six W.H.A. franchises are constrained to a greater ~~or~~ lesser degree by their facilities. The accessibility of their arenas is a contributing factor to the poor attendance experienced by the Detroit Red Wings and Cleveland Barons of the N.H.L. as the Red Wing's facility, the Olympia, is located in a crime ridden ghetto while the Cleveland Coliseum is situated some thirty miles beyond the city limits.[33] The arenas themselves in both these cases are structurally adequate facilities with the Coliseum being perhaps the most attractive hockey facility anywhere.

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[32] Don Ramsey, "Financial Crisis Hits 7 N.H.L. Clubs", *Toronto Globe and Mail*, Dec. 8, 1976, page S-1.

The size of their facilities imposes severe constraints on several W.H.A. franchises in that they must operate under tight budgetary controls and are therefore unable to compete for superior player inputs. Five of the six firms in this position Winnipeg, New England, Quebec, Phoenix, and San Diego have seating capacities of between ten to thirteen thousand people while Calgary has only a 6,445 seat capacity.[34] These firms lacking major league sized facilities of at least 15,000 seats are unable to generate a substantial return on investment because even if they sold out every game their net revenues would not be significantly above the break-even point. For instance, assuming the Calgary Cowboys could operate an extremely competitive team on a $2.5 million budget and filled the Calgary Corral to capacity every game, the firm would have to charge an average price per seat of $9.72 to break-even on regular season in-person attendance revenues. Unfortunately, under the present market conditions it is impossible to operate a legitimate contender on a $2.5 million budget.

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[33] Don Ramsey, "Financial Crisis Hits 7 N.H.L. Clubs", Toronto Globe and Mail, Dec. 8, 1976, page S-1.

[34] 1975-76 W.H.A. Media Guide, pages 5, 21, 23, 25, 27.

Furthermore, a smaller seating capacity prevents major league hockey firms from fully exploiting instances where excess demand occurs for a particular match. A team with a seating capacity of 10,000 people may average 8,000 fans per game but on some nights it could utilize 15,000 seats if it had them. Moreover, since there are fewer good seats in a 10,000 seat facility than one with 15,000 seats this fact also tends to discourage walk in attendance.

Four of the six W.H.A. firms with substandard facilities New England, Quebec, Winnipeg and Calgary are situated in adequate markets but only the former three have been able to approach or exceed their break-even points because they have iced relatively competitive teams and have maintained tight cost control. However, in the long run their viability will be threatened as they will be unable to compete for superior player inputs with either N.H.L. clubs or other W.H.A. franchises which have larger arenas such as Indianapolis, Edmonton, and Cincinnati. Without access to fresh young talent the franchises with smaller buildings will gradually become more uncompetitive until they incur substantial losses and are forced to cease operations.

The extremely small seating capacity of the Calgary Corral places the Calgary Cowboy's franchise in an even more tenuous position as its losses are so large that they threaten its short run viability. Under the present conditions the firm is forced to lose $500,000 even in a good year at the gate when the team is relatively competitive. However, as it is impossible to recruit better players on a restricted budget these losses are bound to mount as the league's other clubs improve, leaving the Cowboys in a relatively less competitive situation. Consequently, the Calgary Cowboys franchise will be forced to cease operations in the very near future unless it acquires a new facility.[35]

3. Alternatives for Non Viable Franchises

Those franchises that do not possess an adequate market or are without hope of acquiring an adequate facility can be considered to be non viable. The alternatives open to the ownership of these firms are essentially threefold. First, they can attempt to sell the franchise to another group or individual. However, the prospects of finding someone to purchase such an enterprise are remote, especially if the proposed changes in the United States tax laws have a significant effect on the amount of depreciation that can be allocated towards the players contracts. Second, the franchise could be shifted to a more suitable location. Unfortunately, virtually all of the best major league hockey franchise sites are either presently occupied or have been tested and found wanting. Moreover, those untapped regions thought to possess market potential for major league hockey also have significant negative factors associated with them such as a lack of a hockey background, a substandard facility or intense competition for the entertainment dollar from other professional or collegiate sports.

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[35] George Bilych, "Cowboys Need $12 Million to Rebuild Calgary Arena", The Hockey News, Nov. 12, 1976, page 27.

Given that it is becoming increasingly difficult, if not impossible, to either sell or shift an ailing major league hockey franchise that has an inadequate market or has no prospect of acquiring a major league quality facility the only alternative open to owners of firms in this position is to cease operations. Within the next three to five years the author expects two teams in the N.H.L., Colorado and Cleveland, as well as at least five W.H.A. firms Minnesota, Phoenix, San Diego, Houston and Calgary to take the aforementioned course of action. In addition Birmingham of the W.H.A. may also be forced to liquidate itself.

If it does come to pass that two N.H.L. and five W.H.A. firms fold, the overall caliber and entertainment value of the games should improve markedly as the remaining teams will pick up the defunct clubs quality athletes. For example, if five W.H.A. clubs cease operations over one hundred hockey players will be thrown onto the job market. If only one third of these individuals are quality athletes each of the remaining eight W.H.A. teams will be able to add four good hockey players to their line ups. Moreover, due to the law of supply and demand salaries should also decrease to a certain extent because the players' bargaining position vis a vis management will be weakened.

IV. The Quality of Major League Hockey Management

Importance of Management

Given that a major league firm is situated in an adequate market and possesses a facility of major league caliber with at least 15,000 seats, managerial skill is the crucial variable in determining whether or not a particular team achieves legitimate contender status and perhaps more importantly, maintains it. The reasons why managerial skill and not economic power is the key factor in such situations are essentially two fold.

First, quality player inputs, due to the fact that a major league hockey firm's profitability is heavily dependent on the competitiveness of its team, are scarce resources and are rarely sold outright when an adequate market is present in conjunction with a major league caliber facility. For example, assume that a hockey firm has an extremely competitive team, is operating at full capacity in a 15,000 seat facility, and charges an average price of eight dollars per seat. This firm would generate 4.8 million dollars in in-person attendance revenues over the course of the forty game regular season. Assume now that it sells three of its best players for 1.0 million dollars and this sale causes the team to decline in the standings to the point where it is of mediocre stature and only draws 12,000 fans per game at the same ticket prices. Regular season in-person attendance revenues would decline from 4.8 million dollars to 3.84 million dollars. In addition, the club would probably also lose playoff game revenues since in all liklihood it would be eliminated in an early playoff round. Moreover, it is unlikely that the club would be able to maintain its ticket prices at an average price of eight dollars per seat because of the reduced demand for seats. Thus if the break-even point for the team was 3.6 million dollars before and after the players were sold the club would have garnered a net profit on the regular season of 1.2 million if it had kept its stars and $240,000 if it disposed of them. However, the firm's long run profitability would undoubtedly also be effected by the loss of its stars as its in-person attendance revenues would not increase until the team once again achieved legitimate contender status.

Consequently, quality players are normally only sold outright if either the market or the facility is inadequate and forces management to reduce operating costs to a bare minimum in order to cut their losses until such time that they can either sell the franchise, shift it to a new location or cease operations.

Second, the nonmarket mechanisms employed by the leagues to distribute the negotiation rights to hockey players (ie. the draft, negotiation lists) tend to ameliorate differences in wealth between firms by restricting the utilization of monetary resources to acquire player inputs. Thus two of the most competitive teams in the N.H.L., the Boston Bruins and the New York Islanders, have relatively small seating capacities of 14,597 and 14,865 respectively while two of the potentially most profitable teams in the league the St. Louis Blues and the New York Rangers with seating capacities of 18,006 and 17,500 seats respectively have mediocre squads.

Many of the major league hockey industry's most severe problems can be traced directly to gross mismanagement at both the macro and micro levels. At the macro or league level there has been an overwhelming tendency for decision makers to grasp for the short run dollar with a near total disregard for any potential long run consequences of these actions. Meanwhile the managements of many individual firms at the micro level have been so lacking in analytical skills that they formulate their player acquisition strategies without reference to the facts. Moreover, there is ample evidence to suggest that many major league hockey firms are chaotically mismanaged with respect to cost control and organizational efficiency.

A. Mismanagement at the Macro Level

1. Expansion Policies

(i). Insufficient Financing

The expansion policies adopted by the major league hockey industry clearly indicate a lack of foresight and clear guidelines from upper management. Several of the post 1967 N.H.L. expansion firms were permitted to enter the league despite the fact that they were underfinanced . The league governors were blinded by greed, being anxious to collect their share of these clubs' expansion fees and gave little thought to the consequences if these new, underfinanced clubs were either uncompetitive or situated in poor markets.

The Philadephia Flyers were so underfinanced due to financial difficulties encountered by their first owner Jerry Wolman, that the league was forced to grant the team an extension in order for it to make its first expansion fee payment on June 5, 1967.[36]

The Pittsburgh Penguins required refinancing in their initial season and have had four separate groups of owners since the 1967 expansion.[37] The California Golden Seals group was in a similar position being unable to withstand the large losses that the franchise absorbed in its first season. This franchise has been a recurring headache for the rest of the league's membership as they pumped some $11 million into it before it was shifted to Cleveland prior to the 1976-77 season.[38] The fact that the Vancouver Canuck's parent company Medicor was similarly underfinanced became apparent in 1973 when Tom Scallen, the team's president, was sentenced to four years in prison for illegally diverting $3 million from the hockey firm back to its parent.[39] More recently the Kansas City Scouts, according to Clarence Campbell president of the N.H.L., could not carry on and required a $300,000 loan from the league to finish the 1975-76 season because, "They didn't have any resources nor did they have any depth. They had nothing in sight."[40] The Atlanta Flames are currently so underfinanced that they are unable to order newspaper advertisements on game days while the Cleveland Barons (formerly the California Golden Seals) have recently requested a $1 million dollar loan from the league to allow them to complete the 1976-77 schedule.[41]

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[36] Gerald Eskenazi, Hockey, page 118.

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[37] Beddoes, Fischler, Gitler, Hockey!, pages 134-35.
Bill Hertelder, "Troubled Penguins Under New Ownership", The Hockey News, June 1975, page 5.

[38] Bill Libby, "Bonanza by the Bay", The Hockey News, Oct. 24, 1975, page 8.

[39] Beddoes, Fischler, Gitler, Hockey!, page 154.

[40] Red Fisher, "N.H.L. Problems Rooted in Bad Management", The Montreal Star, Dec. 4, 1976, page G-1.
"Scouts Get Reprieve Until N.H.L. Schedule for 1976-77 Adopted", Toronto Globe and Mail, June 9, 1976, page 53.

The W.H.A.'s record with respect to the recruitment of sound ownership is even less impressive. Every original W.H.A. club has experienced at least one ownership shuffle in its five year history.

(ii). Stocking of Expansion Franchises

Expansion franchises are under the greatest pressure in their first few years of existence because they have large entry fees to pay, must establish themselves in their markets and are relatively uncompetitive. Neverthless the established teams, particularly in the N.H.L., have steadfastly refused to grant expansion teams greater access to better player inputs either through the expansion or amateur drafts. The only concession post-1969 expansion teams were granted with respect to the amateur drafts was that they received the first choices in the draft held prior to their initial campaigns. Thus Buffalo and Vancouver received the first two choices in the 1970 draft, while the New York Islanders and Atlanta Flames had the first two picks in the 1972 draft and Washington and Kansas City drafted first and second respectively in 1974.

It was understandable that general managers were reluctant to allow the 1967 expansion teams to select many of their players during the 1967 expansion draft as there were so many firms to stock. However, they were even less generous with future expansion teams as established clubs could protect but eleven skaters and one goalie during the 1967 expansion compared to two goaltenders and thirteen skaters in the 1970, 1972, and 1974 expansion drafts which stocked Vancouver and Buffalo, Atlanta and Long Island, and Kansas City and Washington respectively. Moreover, the number of players any one established team could lose in these expansion drafts was restricted and clubs were permitted to protect or fill with another player when an individual under contract to them was selected by an expansion team. The lack of talent available to them via the draft prevented expansion clubs from being competitive immediately which in turn made it more difficult for them to market their product and contributed to their capital shortages as their revenues were less that what they could have realized with a more competitive team.

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[41] Red Fisher, "Survival of the Fittest the Only Answer", The Montreal Star, Nov. 11, 1976, page C-1.

2. Understanding of the Market

The W.H.A.'s attempt to place teams in the same market area as N.H.L. clubs that were either uncompetitive or experiencing excess demand for their product (New York, Minneapolis - St. Paul, Boston, Chicago, Los Angeles, Vancouver, and Detroit) indicated that the league's top management had little understanding of the hockey markets they were attempting to enter. None of these efforts were successful as all of these firms were forced to find new locations after absorbing tremendous losses. Where excess demand was present there was not enough of it to support two major league hockey clubs and the W.H.A. teams, without a high degree of absolute product differentiaion, were unable to acquire a large enough share of the market to ensure their viability.

The underlying premise behind the W.H.A. invasion of N.H.L. markets such as Los Angeles, Vancouver and Detroit which contained uncompetitive teams was that the W.H.A. clubs would be able to capture a significant share of the market by presenting a competitive product to the public. Unfortunately, the feasability of this plan was limited due to its reliance on factors outside the control of the clubs' management, being predicated as it was on the N.H.L. teams continuing to be uncompetitive. When Vancouver and Los Angeles of the N.H.L. improved to the point where they became teams of mediocre caliber they drove the W.H.A. out of their markets.

3. Under Utilization of Television as a Marketing Device

The primary impetus behind the original expansion of the N.H.L. in 1967 was the prospect of vastly increasing revenues through the sale of broadcast rights to the major American television networks. The league was so anxious to tap these new sources of revenue that it not only allowed suspect ownership to acquire several of the new franchises but also, for television purposes, situated franchises in less than exemplary markets. For instance the inclusion of a franchise in the San Francisco - Oakland Bay area was a stipulation of the N.H.L.'s contract with the C.B.S. television network.[42]

Unfortunately for the league, the broadcast riches it had envisioned never materialized as a result of poor ratings. During the five years that the C.B.S. network held the N.H.L. television contract the ratings rose from the 3's to the 6's in the Nielson rating, meaning from three to slightly over six percent of television sets in the United States tuned into the games.[43] When N.B.C. dropped the N.H.L. games at the conclusion of the 1974-5 season after broadcasting them since 1972, the Sunday afternoon game of the week had a rating of 3.8 nationally.[44] It is thought that the decline in the ratings resulted to a large extent from increased competition from the other networks, notably A.B.C., which introduced its popular 'Superstars' series and a Sunday edition of the Wide World of Sports.

Instead of sacrificing broadcast revenues in the short run in order to provide the game with much needed exposure in the United States, thereby developing product awareness and a television market for the future, the N.H.L. mandarins refused to lower their asking price for the broadcast rights to league games.[45] N.B.C. subsequently cancelled its contract at the end of the 1974-75 season and no other major network has since picked up the option.

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[42] Beddoes, Fischler, Gitler, Hockey!, page 115.

[43] Bill Fleischman, "Flyers Radio-TV Program Could be a Model for N.H.L.", The Hockey News, Dec. 5, 1975, page 12.

[44] "N.H.L. Seeks U.S. Viewers with Self Made Package", Edmonton Journal, Jan. 13, 1977, page 66.

The N.H.L. presently televises its games on a syndicated television hookup that has severe limitations in that its exposure is more limited than network television. The games are televised on Monday nights in an effort to capture the sports viewing audience developed by A.B.C.'s Monday Night Football and are offered to local stations at cost. The league then sells half the commercial time to national advertisers while the stations recruit local sponsors.[46]

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[45] Alan Richman, "How Hockey Turned a Blind Eye to Television Riches", The Montreal Star, Dec. 9, 1976, page C-1.
[46] "N.H.L. Seeks U.S. Viewers with Self Made Package", Edmonton Journal, Jan. 13, 1977, page 66.

B. Mismanagement at the Micro Level

If the major league hockey owners can be said to have been somewhat lax in their direction of the industry's affairs, many of the individual firms can only be described as being chaotically mismanaged. Illconceived building strategies designed without reference to the facts are commonly utilized throughout the industry while other symptoms of organizational dysfunctions such as poor cost control, rampant nepotism, the presence of false economies, owner interference in managerial perogatives and a lack of adaptability at upper management levels are commonplace.

1. Managerial Inability to Adapt to a Changing Environment

Major league hockey management's lack of adaptabilty to its changing environment is best illustrated by examining how both the changes in the player reservation system brought about by the post 1967 expansion as well as the economic changes caused by the formation of the W.H.A. have affected the competitiveness of several teams.

Prior to the first expansion major league hockey's player reservation system was based on sponsorship. Every N.H.L. firm sponsored a number of amateur hockey clubs and owned the playing rights to the athletes on these teams. Major league clubs wishing to acquire the best young talent would merely develop extensive scouting systems and sign the best young players in the minor hockey system. Fourteen year old hockey players such as Bobby Hull were signed to letters of intent and sent to hockey clubs hundreds of miles away from home.[47] Several N.H.L. clubs notably New York, Detroit, and Chicago developed their farm systems in this manner and became championship contenders. Detroit's farm system produced such luminaries as Terry Sawchuk, Red Kelly, Gordie Howe, and Alex Delvecchio while Chicago's yielded Bobby Hull, Stan Mikita, and Phil Esposito. More recently the New York Ranger's farm system developed Rod Gilbert, Jean Ratelle, Bill Fairbairn, Brad Park and Walter Tkaczuk.

However, after the sponsorship system was phased out and replaced by the universal amateur draft some general managers failed to make the necessary adjustments in their player acquisition policies. In New York, Emile Francis traded the young players in the Ranger's farm system such as: Mike Murphy, Mike Robataille, Syl Apps, Don Luce, Andre Dupont, Tom Williams and Bob MacMillan for older, more experienced but not necessarily more skillful athletes such as Ted Irvine, Glen Sather, Dale Rolfe, and Peter Stemkowski. This practice of trading for older players without working younger players into the lineup accelerated the aging process on the Rangers and made a significant contribution towards the team's demise as a legitimate contender.

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[47] Gerald Eskenazi, A Thinking Mans Guide to Pro Hockey, page 10.
Bruce Kidd and John MacFarlane, The Death of Hockey, pages 54-58.

Meanwhile, Thommie Ivan, long time general manager of the Chicago Black Hawks, failed to acquire the additional early draft choices required to replace his better players before their age resulted in diminishing productivity. The Black Hawks have never acquired any extra first round draft choices. Consequently, between the 1969 and 1974 drafts they never drafted higher than twelfth overall and therefore missed the opportunity to replace their aging stars because the high degree of skewdness present in the draft makes it difficult to acquire I caliber players later than the first round.[48]

Some other general managers were slow to adapt to the economic threat of the W.H.A. and as a result lost valuable player inputs to the rival league. The California Golden Seals lost eleven players to the W.H.A. in one year including Paul Shmyr, Tom Webster, Gerry Pinder, Wayne Carlton and Bobby Sheehan largely because Charles O. Finely the Seals owner refused to compete for players.[49] Similarly, Toronto lost Bernie Parent, Rick Ley, Brad Selwood and Jim Harrison while Boston's losses included Gerry Cheevers, Ted Green, Derek Sanderson and John McKenzie.[50]

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[48] 1972-73 N.H.L. Guide, pages 138, 139, 141, 143.
1973-74 N.H.L. Guide, page 189.
1974-75 N.H.L. Guide, page 206.

[49] Bill Libby, "Charlie O. Fighting Back", The Hockey News, June 1973, page 8.

[50] "N.H.L. Loses 67 Players From Last Years Teams", The Hockey News, Oct. 6, 1972, page 15.

On the other hand, some hockey firms overreacted to the W.H.A. by signing their players to astronomical salary increases without giving proper consideration to the players' worth to the team. Consequently, salary scales on some teams became grossly inflated out of all proportion. For instance, the New York Rangers signed several of their key players such as Brad Park, Red Gilbert, Jean Ratelle, Vic Hadfield and Walt Tkaczuk to more lucrative long term contracts than were probably necessary to retain their services.[51]

2. Failure to Exploit Competitive Advantages

Several major league hockey managements have failed to fully exploit obvious competitive advantages. For example the Los Angeles Kings possess one of the most efficient scouting systems in the N.H.L.[52] Five of the players on the Kings 1976-77 major league roster were not amongst the first thirty players selected in their draft year while the club's second leading scorer, Butch Goring, was the fifty first player drafted in 1969. However, despite its' efficiency the Kings scouting system has been ineffective because management has traded away the vast majority of the club's high draft choices. The club has retained its own first round draft choice only once since the 1969 draft and in that instance traded the negotiation rights to the player before the commencement of the season.[53] Due to the high degree of skewdness apparent in the draft it has been virtually impossible for even the efficient Los Angeles scouting system to select quality hockey players with later draft choices.

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[51] Bill Libby, "Rangers Coming On Strong", The Hockey News, Sept. 1972, page 8.
[52] Supra. page 138.

The Edmonton Oilers are another textbook example of a management failing to fully exploit inherent and obvious competitive advantages in its enviroment. The Oilers are virtually the only franchise in the W.H.A. not operating under some form of constraint with regards to facility size or quality, quality of market, or degree of product awareness within the market. Edmonton, a properous city of 500,000 people with a long history of hockey involvement, has a 15,300 seat hockey arena which is amongst the finest structures of its kind in the world. Furthermore there is little competition for the entertainment dollar, particularly the sports dollar, during the months from November to July as the local entertainment industry is in its infantile stages and the city's professional football team's schedule extends from July to November. Moreover, the club's ownership has been amongst the most stable in the league.[54]

In spite of all of these advantages over the other clubs within the league many whom were and are underfinanced, restricted by a lack of a hockey background in their markets, or occupy inadequate buildings, the Oiler's management has been unable to ice a legitimate contender. The team has only made the playoffs twice in its five year existence losing out in the opening round of the playoffs on both occasions.

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[53] Mark Mulvoy, "Baby It's Cold Inside", Sports Illustrated, Jan. 19, 1973, page 18.
[54] Reyn Davis, Winnipeg Free Press, March 12, 1976, page 18.

3. Lack of Public Relations Expertise

Major league hockey in many respects has been remiss in not fully utilizing the media as a source of favorable exposure and publicity. At the league level the N.H.L.'s administrative staff is undermanned. As Ed Snider the Philadelphia Flyers board chairman has remarked: "I've said for ten years that our league lacks structure. Clarence Campbell should have retired years ago. He's a fine man but he can't do it alone. He's in his seventies, but I'll bet you could call him right now (7:30 PM on a Thursday) and he'd be in his office. That's ridiculous.

"The league needs more people - counsel, administrators, researchers. We play many more games than the N.F.L. We have minor leagues to worry about, a war with another league, yet we have about two per cent of the N.F.L.'s staff.

"The league is in the dark ages. It had better wake up soon."[55]

At the team level lack of cooperation with the media is widespread. Press guides containing information and statistics on the players and facts and figures about the hockey operation are notoriously slow in being distributed, while it is a rarity for the public relations people to compile a simple scoresheet for the media detailing a game's important statistics.[56] In addition, many major league hockey managements forbid media personnel to interview the players before the games. This is in sharp contrast to other major league professional team sports leagues such as the National Football League and the major leagues of baseball where players are freely accessible to media sources. [57]

Moreover, for all the extra expenditure of effort it requires a good many of major league hockey's public relations staffs do not take the trouble to at least ensure the creature comfort of the media. This is especially true after the games when media people are describing the club's product to the fans in their articles on the contest.[58]

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[55] Bill Fleischman, "Campbell Needs Help", The Hockey News, Dec. 3, 1976, page 14.

[56] Bill Fleischman, "New Rules May Be Hurting", The Hockey News, Dec. 3, 1976, page 14.

[57] Bob Verdi, "N.H.L. Dwells on Secrecy", The Hockey News, Nov. 12, 1976, page 10.

[58] Bill Fleischman, "Barons Team of the Future", The Hockey News, Dec. 10, 1976, page 12.

4. Retention of Incompetent Scouting Personnel

When one of the functions critical to a firm's long run viability is not being performed in a satisfactory manner in a normal, efficiently operated business the individuals responsible are replaced. Major league hockey managers, on the other hand, tend to attribute the failure of their own scouting systems in comparison to the more efficiently operated systems to "luck". This feeling exists despite the fact that these same managers generally enjoy a competitive advantage in that, as a result of their own incompetence, they have earlier draft choices as their clubs continually finish at the bottom of the standings. When the drafting performance of several teams is evaluated (excluding the players they have selected very early in the draft where it is much easier to chose talented athletes) their records can only be described as abysmal. Firms were examined with respect to how well they selected players from the latter portion of the draft's first round to the end of the second round which encompassed draft selection positions 11 to 36.

For instance, with eleven choices in the 11-36th player range in the draft years between 1969 and 1974 inclusive, the Minnesota North Stars only managed to select two players of II caliber, Dennis O'Brian and Gilles Gilbert, and one of III stature Fred (Buster) Harvey, the other eight individuals being IV's and V's.[59] Nevertheless, the

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[59] Supra. page 159.

Minnesota North Star scouting staff changed only slightly over the years despite its unimpressive record.[60] Ted O'Connor is still the club's chief scout and John Mariucci remains in charge of scouting the American college ranks while those scouts that did leave the organization were not dismissed. For example, Harold Cotton, then in his seventies, retired in 1975 after serving as the North Stars Director of Field Operations, essentially a scouting position.

The Detroit Red Wings drafting performance over the same time period and draft selection range is even less impressive as none of their eight selections in the same range of draft positions developed into a professional hockey player of even III stature.[61] Yet Jim Skinner, once the club's chief scout, has not only been retained but promoted to the position of Assistant General Manager with Dan Summer, at one time the Chief Western Scout, taking over the position vacated by Skinner.[62]

For the last four seasons Cecil (Tiny) Thompson has been the Chicago Black Hawks chief scout in Western Canada while Jack Davidson has occupied the organization's equivalent position in Eastern Canada despite the fact that the firm in thirteen opportunities succeeded in selecting ohly one II and one III, Darryl Maggs and Len Frig respectively, in the second and third rounds from 1969 to 1974.[63]

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[60] Jim Proudfoot, Pro Hockey 68-69, page 82.
1976-77 N.H.L. Guide, page 16.

[61] Supra. page 159.

[62] Jim Proudfoot, Pro Hockey 68-69, page 39.
1976-77 N.H.L. Guide, page 14.

5. Nepotism

The managers of the major league hockey industry have done very little to dispel allegations that they are a self perpetuating elite as nepotism is rampant within the industry. For example, Gerald Blair was hired as the Pittsburgh Penguins Chief Scout prior to the 1976-77 season by his brother Wren Blair who was at that time part owner and general manager of the club. Similarly, Ray Miron, general manager of the Colorado Rockies recently acquired the services of his son Monte who is to work in "an all-round capacity" with the club. Son Montes' primary aptitudes for the job according to his father are that, "He's big and tough but injury prone. But he wants to get into the business end..."[64] Naturally, the recent appointment of Rick Francis to the vaunted position of Assistant Director of Sales in the St. Louis Blue's organization had nothing at all to do with the fact that his father, Emile Francis, is General Manager and part owner of the firm. Meanwhile, David

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[63] Supra.page 159.
1972-73 N.H.L. Guide, page 10. 1976-77 N.H.L. Guide, page 11.

[64] Larry Borstein, "Miron Realizes Life-Long Dream Working in N.H.L.", The Hockey News, Jan. 14, 1977, pages 13 and 39.

Poile, son of long time hockey executive Norman "Bud" Poile, is the Assistant General Manager of the Atlanta Flames.[65]

Nor have W.H.A. teams been reluctant to serve as employment agencies for relatives of individuals within their organizations. To take just one example, the Cincinnati Stingers employ Harry Sobchuk, Jacques Locas and Stan Maxwell as scouts. Coincidently, three of the team's brightest young stars are their sons' Dennis Sobchuk, Jacques Locas, and Bryan Maxwell.[66]

6. Owner Interference

That the owner of a multi million dollar enterprise would take a keen interest in its operation is not an unexpected occurrence. However, several major league hockey owners have interpeted their roles going beyond the mere recruitement and supervision of management personnel and have become involved with player acquistion and optimization functions that are beyond the realm of their expertise. It is not entirely coincidental that the N.H.L. clubs boasting a greater degree of ownership participation with regards to the firm's day to day operations also sport on ice records that are at best, mediocre. The Los Angeles and St. Louis franchises of the N.H.L. are the two most blatant and well publisized examples of owner interference with regards to managerial and coaching perogatives in the major league hockey industry.

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[65] 1976-77 N.H.L. Guide, pages 8 and 22.
[66] 1975-76 W.H.A. Media Guide, page 7.
Personal interview with Mr. Lou Jankowski, C.S.S. scout, January 14, 1977.

In Los Angeles owner Jack Kent Cooke is actively involved with every major personnel decision and had been a moving force behind the team's policy of trading away its higher draft choices for veteran players.[67] In exchange for solid if unspectacular veterans such as Gerry Desjardins, Terry Harper, Bob Murdoch, and Ross Lonsberry as well as assorted lesser lights such as Randy Rota, Ken Turlik, Skip Krake, and Eddie Shack the Kings have given up the draft rights to All Star caliber wingers Steve Shutt and Reg Leach, former W.H.A. rookie of the year Gary MacGregor, promising young winger Mario Tremblay, Andre Savard the Buffalo Sabres fine young center, and veteran defenceman Dick Redmond. In addition, several other young players selected with draft choices relinquished by Los Angeles are showing considerable promise in the minor leagues. Pierre Mondou was rookie of the year in the American Hockey League in 1975-76 while Rod Schutt won the same honour in 1976-77.

Other than during the 1974-75 season when they collected one hundred and five points the Kings have never finished higher than a distant sixth in overall points at the season's end. Consequently, their average regular season attendance has never exceeded 12,700 persons per game in a building with a seating capacity of 16,005.[68]

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[67] Bill Libby, "Milford Puts the Pieces Together; Kings Come Through For Cooke", The Hockey News, April 19, 1974, page 12.

The St. Louis Blues are even more interesting with respect to the degree to which the owners are involved in front office affairs. Under the guidance of William (Scotty) Bowman the club was initially extremely successful winning the N.H.L.'s Western Division, composed of other expansion teams, each of its first three seasons and earning the right to compete in the Stanley Cup Final Series. However, Mr. Bowman left the team prior to the 1971-72 season after disagreeing with the clubs owner, Sidney Salomon II, about the extent of his authority to control the affairs of the hockey club.[69] Evidently, Mr. Salomon was and is prone to dabbling in the actual handling of players and even "suggested" line changes and personnel shifts on the ice.[70] Former coach Lou Angotti has noted that Sid Salomon has tended to usurp the coach's authority by allowing players to go over his head, that is, deal directly with Mr. Salomon rather than the coach when they have a grievance.[71] Moreover, according to former St. Louis general manager Chuck Catto, Mr. Salomon, who much like Mr. Cooke in Los

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[68] Bill Libby, The Hockey News, May 21, 1976, page 13.

[69] Donald Berns, "Blues Part Company With Clubs Future Solid", The Hockey News, June 1971, page 6.

[70] John Jeansonne, "Islanders Reach For a Winner", Hockey Digest, May 1976, reprinted from Newsday.

[71] Bob Verdi, "An Inside Look at the Troubled St. Louis Blues", Hockey Digest, May 1976, pages 70-76.

Angeles participates in all major decisions, relied heavily on Mr. Emile Francis at that time General Manager of the rival New York Rangers organization for advice with respect to potential trades and other player transactions.[72] It is difficult to conceive of a decision maker in any other highly competitive industry asking the advice of a rival manager about crucial strategy decisions in which he may have a vested interest. Mr. Francis became the Blues new General Manager, coach and part owner prior to the 1976-77 season.

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[72] Wayne Overland, "Blues in St. Louis Don't Surprise Catto", Hockey Digest, April 1975, page 42.

7. Lack of Rigour in the Formulation of Strategy Related to Assembling a Legitimate Contender

Strange as it may seem the first problem major league hockey general managers encounter in formulating the building strategy that they hope will eventually result in an improved hockey team is that many of them lack a clear conception of their organization's primary goal. Although they understand that they must strengthen their squads they lack a clear understanding of how powerful a team is required to maximize profits in an imperfect market. Consequently, strategies designed to achieve more immediate short run goals such as winning the next few games or making the playoffs are adopted. These goals themselves are not necessarily undesirable in that they provide the players, coaching staff, and management with a realistic short run guide as to whether or not the organization is progressing towards its ultimate goal of assembling and maintaining a team of legitimate contender caliber in the long run. However, when the strategy utilized in achieving short run goals precludes or delays attainment of the long run goal, legitimate contender status, it is poor strategy.

Examples of firms foresaking opportunities to achieve legitimate contender status through implementation of strategies designed to accomplish short run oriented goals are common place. The Los Angeles Kings and California Seals (now known as the Cleveland Barons) consistently traded their first round draft choices for veteran journeymen in the hopes of developing fan interest and support quickly by making the playoffs. In the five amateur drafts between 1969 and 1973 the California franchise retained its own first round choice on only one occasion while the Los Angeles Kings have utilized a first round draft choice only once since their inception when they selected Tim Young sixteenth in the 1975 draft and then promptly traded him to Minnesota before he played a game with the Kings.[73] Besides failing to establish a solid basis for their future it is interesting to note that neither team achieved any great degree of short run success by trading their draft choices as both missed the playoffs four times in their first six years of existence.[74]

The Minnesota North Stars also adopted a short run oriented building strategy centered around trading draft choices and performing favours with respect to the expansion and intra league drafts for teams with excess talent, notably Montreal, in exchange for a mixed bag of older veteran players such as Doug Mohns, Ted Harris and Lorne Worsely and younger players from the legitimate contenders' farm systems such as Claude Larose, Danny Grant, Jude Drouin and Barry Gibbs. The North Stars managed to achieve limited success through this strategy as they made the playoffs for five of their first six years in the league, twice recorded eighty-five or more points in the standings and most importantly sold out their arena. Although Wren Blair, Minnesota's general manager, was able to acquire good hockey players such as the aforementioned athletes through implementation of this strategy he could not acquire the necessary star players to establish the North Stars as a legitimate contender. In the mean time other expansion teams, notably Philadelphia and Buffalo, that had kept their draft choices and traded for young players from other organizations grew noticeably stronger while the play of the older players on Minnesota's roster deteriorated with advancing age. Nine individuals on the twenty man roster were thirty-one years of age or older during the 1972-73 season, the last one in which the North Stars made the playoffs.[75] Since the club had squandered its high draft choices in acquiring these players and few of them had significant trade value in the twilight of their careers it was unable to gradually replace them with younger player inputs. Consequently, the North Stars have missed the playoffs for the last three consecutive seasons and their attendance has fallen from an average of over 15,000 fans per game in 1972-73 to under 9,700 fans during the 1975-76 season.[76]

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[73] 1972-73 N.H.L. Guide, pages 138-143.
1973-74 N.H.L. Guide, page 189.

[74] 1976-77 N.H.L. Guide, page 164.

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[75] 1972-73 N.H.L. Guide, page 36.
[76] Pat Thompson, The Hockey News, April 23, 1976, page 26.

Despite the impressive records of teams such as Philadelphia, Buffalo and the New York Islanders, which have taken a long run outlook and built for the future primarily utilizing the amateur draft, many firms continue to trade their high draft choices in direct contradiction of their publicly stated policy. Within their first two years of operation both Kansas City and Washington traded a first and a second round choice each for immediate player help.[77] Similarly, the Vancouver Canucks traded their first choice in the 1976 draft during the 1975-76 season and a second round selection in the 1977 draft in the course of the 1976-77 season.

One reason why many major league hockey managers continue to trade their high draft choices for players of average or mediocre ability is that their building strategies are not formulated in an orderly, rational manner based on empirical analysis of the facts but rather on intuitive interpretations of perceived relationships. Typical is Harold Ballard, the owner of the Toronto Maple Leafs, explanation of how the Leafs decided to modify their player acquisition policy and acquire young players via the draft.

> "King Clancy (Leaf Vice President) and I were sitting at the 1974 All Star Game in Montreal when it struck us that the kids had taken over the game.
>
> Outside of three or four players, the top men

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[77] See 1976-77 N.H.L. Guide, Steve Durbano, page 356, Bill Clement, page 337, Bob Pardise, page 498, Denis Dupere, page 355.

> on the ice were all 24 years of age and under. When we considered our own club and the large number of players we had over 30. We knew it was time to go with the kids, to round up as many youngsters as we could and stick with them until they developed into a good team."[78]

In this instance Ballard and Clancy's intuitive interpretation of the relationship between age and ability had enough basis in fact that it permitted them to establish the groundwork for the current Leaf squad, widely regarded as one of the up and coming teams in the N.H.L.. However, through utilization of this "touchy feely" or "gut reaction" approach to policy making, they could have just as easily postulated a completely erroneous interpretation of the facts.

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[78] Frank Orr, "Young Mans Game", The Hockey News, Dec. 31, 1976, page 12.

(i). Major League Hockey's Managerial Mythology

The use of conjecture, opinion and speculation to formulate player acquisition policy with little expenditure of effort in the direction of real analysis has resulted in the establishment of an erroneous mythology that is widely accepted by managers throughout the industry. The detrimental effects of this mythology are so widespread that its major postulates and precepts deserve more detailed discussion.

(a). The Value of Experience

General managers and coaches throughout the major league hockey industry seemingly never tire of singing the praises of experience. They speak movingly, even reverently of the veteran player's role in the mystical formula that will eventually result in the production of a competitive team. When a young player makes a serious defensive blunder it is invariably referred to as an error of inexperience.

In point of fact, there are thousands of goals scored in major league hockey annually and the vast majority of them can be said to have occurred as a direct result of a serious defensive breakdown by a veteran player but these errors are almost never attributed to excessive experience. The competence of a major league hockey player is not so much a function of the number of years or games he has played at the major league level but rather a function of the amount of talent he possesses where talent is defined as physical ability plus the motivation to utilize it.

Granted, a young man entering the major league professional hockey ranks from an amateur feeder system usually requires a transitional period in which to acclimatize himself to the faster pace and higher skill level of the professional game but he normally is able to accomplish this transition within a season or two if he receives ample ice time and good coaching.[79] The length of this adjustment period in professional hockey is shorter than that of some other professional sports such as football because the key strategies, tactics, and techniques of the game remain unchanged from the amateur to the professional ranks, the difference between the two being in the difficulty of execution. Additional experience beyond this adjustment period is undoubtedly helpful in that the individual probably analyzes and reacts to situations more adeptly, but the returns on this additional experience are marginal and diminishing in nature.

Many major league hockey general managers and coaches appear to make an error in logic in assuming that a proven major league veteran is competent because he is a veteran when in point of fact it is more accurate to say that he is a veteran because he is competent as he has probably improved only marginally since his first year or two in the league.

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[79] Supra. pages 150-54.

(b). The Work Ethic

Hard work is critical to the success of any major league hockey player or for that matter any athlete. Without a concerted effort to make the most of his physical ability an athlete's productivity suffers. An individual with excellent physical skill is reduced to a mediocre level of achievement without hard work while an athlete with good physical ability is a poor performer without it.

However, hard work has its limitations. A player with little physical ability cannot hope to reach the forefront of his profession solely on it alone as there are too many individuals who possess both attitude and physical ability in front of him. The most he can hope to achieve is to be recognized as one of those hard working dependable athletes of marginal ability usually referred to as a "veteran journeyman". Moreover, since it is only his diligence that allows him to be even a marginal player, an individual with limited physical ability can never afford to relax his efforts because his physical abilities cannot carry him. His performance consequently becomes inadequate whenever he is either psychologically or physically unprepared for a contest.

Hardwork, or rather the lack of it, is commonly utilized as a scapecoat by general managers or coaches of mediocre or poor clubs displeased by their team's erratic or poor performance who wish to divert attention from the real root of the problem, their own inability to assemble the necessary talent, by accussing the players of giving less than a full effort. These accusations usually occur either during a prolonged losing streak or shortly after the team has lost to a supposedly weaker club after defeating or severely testing a vastly more talented squad of championship caliber. Typically these allegations are usually accompanied with threats to "make changes" or take "disciplinary action" in the form of fines, suspensions, or demotions to the minors.

The crux of management's argument in this regard is that if the team is capable of being competitive with one of the league's powerhouses it should be able to easily dispose of the circuit's other mediocre and weak squads. Therefore, management argues, the players must be lazy of just going through the motions when they play the less talented squads.

The fact that is overlooked in this type of analysis is that mediocre teams are composed of less gifted athletes who are not endowed with great physical attributes and must consequently work extremely hard every game just to remain competitive. If they relax for a moment the match is lost as they lack the raw physical resources to overcome mistakes. For these teams then there are few easy victories as virtually every game is a struggle, win or lose.

Unfortunately for these teams, major league hockey's regular season does not consist of a limited number of games with ample opportunity in between matches to rest and prepare for the next contest. It is instead a grueling eighty game grind played over eight months involving in many cases over a quarter million miles of air travel and sometimes weeks of living out of a suitcase. The rigours of this schedule make it virtually impossible for any individual or team to be physically and psychologically prepared for every regular season contest. This unavoidable lack of adequate preparation time affects mediocre and poor clubs more than championship caliber teams because athletes on the weak squads have less to give and when they are prevented by fatigue from utilizing what talent they do possess to its fullest extent they are lost.

Consequently, the fortunes of these mediocre squads fluctuate markedly. Although the peaks in their cycle rarely get very high the valleys can be quite deep. Mediocre and poor teams have more incentive to play well against legitimate contenders because their pride is aroused and they regard it as a challenge to test their mettle against the best. However, there is significantly less challenge in playing squads of their own caliber. Conversely, championship caliber teams rarely become highly energized with respect to playing a contest against an also ran unless they are endeavouring to eradicate an embarrassing one game losing streak, preferring instead to marshall their energies for when they meet other legitimate contenders. They still work hard for the vast majority of games but not with the same emotional intensity as when they play a contending team. Hence, mediocre squads are able to often tax championship contenders to the limit before finally succumbing and then lose convincingly to the last place club the next evening.

Legitimate contenders, on the other hand, possess a reserve of talent to draw on over the course of the great equalizer that is the eighty game regular season. Whereas the vast majority of players on a mediocre club must play well on a given night in order for the team to win; a legitimate contender can defeat mediocre or poor teams if a substantially smaller number of its athletes are performing capably on that occasion.

(c). Improper Utilization of the Draft

There is still a great deal of reluctance on the part of many general managers in the major league hockey industry to utilize the amateur draft as the foundation of their player acquisition policy. The arguments presented to justify this reluctance are essentially five fold in number and represent an important subset of the managerial mythology.

Argument 1 - The Risk of Failure

The degree of predictability between amateur and professional success is relatively low with many highly touted amateur propects failing to produce as professionals.

Consequently, a firm has to be lucky to draft well. Since first round draft choices commonly receive multi-year contracts worth several hundred thousand dollars, paying untested amateurs this amount of money not only represents a misallocation of the firm's resources but can upset the team's salary scale as the veterans tend to resent rookies being paid astronomical sums before they prove themselves.[80]

Counter Argument

The draft, in point of fact, is highly predictable as twenty-two of the twenty-seven I stature players and sixty-four of the eighty-two II caliber players entering major league hockey between the 1969 and 1974 drafts have been amongst the first fifty-four athletes chosen in their draft year.[81] Moreover, three of the five I stature players selected later than the fifty-fourth player or not drafted at all (Anders Hedberg, Ulf Nillson and Borje Salming) came from the European feeder system before it was highly regarded as a producer of professional talent while another I, Dennis Sobchuk, was selected later than he normally would have been because he had already signed with a W.H.A. team.[82]

Furthermore, several N.H.L. clubs have been able to reduce the degree of risk associated with selecting players within the first few rounds of the draft to the point where it is quite acceptable. Of the sixteen individuals chosen by the Montreal Canadien's organization amongst the first eighteen players in their draft year in the 1969 to 1974 drafts inclusive only two, Gordon McTavish and Ray Martinuk, have failed to demonstrate that they are of least III caliber.[83] Over the same time period the Buffalo Sabres and Toronto Maple Leafs had six first round equivalent draft choices apiece and both failed to select a player of at least III caliber only once each. Morris Titanic has not produced for the Sabres while Ernie Moser was the Leaf's mistake.[84]

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[80] Bob Verdi, The Complete Handbook of Pro Hockey, page 260. Mark Mulvoy, "Youth is Not Wasted on the Young", Sports Illustrated, Nov. 5, 1973, page 48.

[81] Supra. pages 134-42.

[82] It was not until the first Canada Russia series in 1972 that the European feeder system began to be appreciated as a source of major league talent.

Finally, the opportunity cost of not attempting to sign high draft choices deserves consideration. As has been previously demonstrated the better players are chosen within the first three rounds of the N.H.L. draft. Consequently, if a club fails to compete for these individuals it gives up any opportunity to acquire top caliber talent as star players, being justifiably regarded as scarce resources, are rarely traded or sold. Moreover, without signing its higher draft choices it is unlikely that a club could acquire sufficient player talent to enter the trade market.

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[83] Supra. page 151.
[84] Underage players were excluded and the draft positions of the underage players shifted upwards.

Argument 2 - The Length of the Transition Period

When teams are built by acquiring young players through the draft it takes too long for them to become competitive. Fans are not prepared to wait for teams to develop and must be placeted immediately by at least making the playoffs.

Counter Argument

Attendance does not increase substantially in imperfect major league hockey markets until the team is legitimized as a championship contender. Therefore, a firm has few alternatives to building through the draft because it is the only source of top quality talent available on a long run basis as: trades require that something of equal value be exchanged, few talented free agents become available every year, and the players that can be bought or acquired via waivers are normally of marginal quality.

In addition, there are strong indications that young teams, providing they possess sufficient talent, are no less competitive than older more experienced squads. The Houston Aeros even with Gordie Howe, who is forty-nine years of age, in the lineup are the third youngest team in the W.H.A. and are leading their division in points while the league's youngest club the Cincinnati Stingers, with an average age of 22.6 years per man, are locked in a tight battle for second place in the Eastern Division.[65] Meanwhile in the N.H.L. the New York Rangers are rebuilding with youth, three of their regular forwards Pat Hickey, Wayne Dillon and Don Murdock, four of their five regular defencemen and one of their goaltenders, John Davidson, being twenty-three years of age or under. Neverthless they are more competitive than they were in 1975-76 when ten of their players were twenty-eight years of age or older.[86] After forty-four games during the 1975-76 season the Rangers had collected thirty-eight points in comparision to garnering forty-four points in their first forty-three games during the current 1976-77 campaign.[87]

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[65] The Hockey News 1977 Yearbook, page 100.

Argument 3 - The Draft is an Ineffective Redistribution Device

Some critics contend that the draft is a relatively ineffective means of redistributing talent because even the last place team achieves only a slight advantage over the first place finisher with regards to the opportunity to acquire the best amateur prospects. For example the N.H.L. has eighteen member teams, assuming the draft gives the seven rounds the last place club occupies draft selection positions 1, 19, 37, 55, 73, 91, 119 while the first place finisher receives the negotiation rights to the players chosen in draft selection positions 18, 36, 54, 72, 90, 118 and 136. Therefore the last place team only has a significant advantage over the regular season champion in the first round of the draft.

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[86] Norm MacLean, "Ranger Future Promising Under Ferguson", The Hockey News, Jan. 21, 1977, page 19.
[87] The Hockey News, Jan. 30, 1976, page 22 and Jan 21, 1977, page 20.

Counter Argument

The fallacy inherent in the aforementioned argument lies in the high degree of skewdness present in the amateur draft. The top amateur prospects are readily isolated and consequently are selected extremely early in the draft.[**] For instance, seventeen of the twenty-four I caliber players entering major league hockey from a North American feeder system between the 1969 and 1974 drafts were chosen amongst the top ten players selected in their draft year. Similarly, sixty-four of the II stature players entering major league hockey over the same time period were amongst the first fifty four players selected in the year they became eligible for the draft. Thus teams selecting in the early portion of the draft's first round enjoy a tremendous advantage over the clubs with later choices because not only is the probability of acquiring an individual of at least II caliber much greater but the probability of a later drafting team being able to acquire a I is extremely low. A comparison of all the players chosen in the first draft position and the eighteenth illustrates this point. The first players selected in the amateur draft since 1969 have been: Rejean Houle (1969), Gilbert Perrault (1970), Guy

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[**] Supra. pages 134-42.

Lafleur (1971), Billy Harris (1972), Denis Potvin (1973), Greg Joly (1974), Mel Bridgeman (1975) and Rick Green (1976). The players selected in the eighteenth draft position constitute a much less impressive list: Ron Stackhouse (1969), Bill Clements (1970), Brian McKenzie (1971), Dwight Bialowas (1972), Blake Dunlop (1973), Ron Greschner (1974), Alex Forsythe (1975) and Bruce Baker (1976).[89]

Argument 4 - The Availability of Sleepers

Another argument utilized against recruiting heavily from the first few rounds of the draft is that good players are available in the later rounds who are willing to work for less money than first, second, and third round draftees. Consequently, firms should conserve their monetary resources by relying on these low draft choices.

Counter Argument

Players of sufficiently high enough quality to play on contending hockey clubs are simply not available in the later rounds of the draft. When the underage juniors selected in the 1974 draft are excluded 555 players were selected later than the fifty-fourth player in the draft between 1969 and 1974. Excluding the European players , who were not selected because the major league hockey scouts were at that time unaware of the European feeder system's potential, only fifteen II caliber players and twenty-six III's emerged from this group of well over five hundred and fifty draftees.[90] The aforementioned figures included individuals who were free agents that is, those individuals not selected in the draft. Moreover, the European feeder systems are drying up as a cheap source of quality athletes because this region is now being more thoroughly scouted. For example Bjorn Johansson, a Swedish defenceman, was the fifth player taken in the 1976 N.H.L. draft while three Swedes including Johansson were amongst the first eleven players chosen in the 1976 W.H.A. amateur draft.[91]

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[89] 1974 Corrected for underage draft.

Even if by some miracle a firm was able to consistently select good hockey players in the draft's lower rounds its savings with respect to salaries would be of a short run nature. Once they established themselves as fine players these "sleepers" would demand the market value for their services and complete their contractural obligations and jump to another club if substantial increases in salary were not forthcoming.

Finally, because few good hockey players are available in the lower rounds of the draft, the opportunity cost of employing lower round draftees is that it is virtually impossible to ice a competitive team. Without a competitive team in an imperfect market attendance suffers and, due to the high fixed cost nature of the business, large losses are incurred.

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[90] Supra. pages 136-41.
[91] _1976-77_ _N.H.L._ _Guide_, pages 257-259.

8. Poor Cost Control

Ample evidence exists indicating that a large number of firms within the major league hockey industry are extremely inefficiently managed with respect to cost control. Wide divergences occur between teams with regards to salary level and player development expenses that are totally unrelated to the quality of the major league club or its minor league affiliate.

The last place Birmingham Bulls have the highest salary scale in the W.H.A., $150,000 higher than the club with the next largest payroll.[92] However, the Houston Aeros with an annual player payroll of approximately $1.6 million finished the 1976-77 season forty-nine points ahead of the Bulls in the standings and have participated in every A.V.C.O. Cup final series since the league's inception.[93] Similarly the Edmonton Oilers operated with a player salary budget of just over $1.4 during the 1975-76 season. The Minnesota Fighting Saints finished five points ahead of the Oilers despite playing only fifty-nine games compared to the Oiler's eighty-one (the Saints were forced to suspend operations as a result of financial difficulties) yet had a player budget of only $1.3 million for twenty-seven players.[94]

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[92] Paul Patton, "Bulls Get Full Pay But Wait Until 30th Bassett Warns Club", Toronto Globe and Mail, Nov. 16, 1976, page 48.

[93] "Aeros Move Up in Race With Win Streak", The Hockey News, Jan. 14, 1977, page 29.

Nor is the record of managers in the more established N.H.L. in any way more impressive. Tom Cousins, principal owner of the Atlanta Flames, recently made reference to one N.H.L. firm whose payroll had skyrocketed from $560,000 in 1972 to $2.8 million today.[95]

If newspaper accounts of salary scales are at all accurate the aforementioned team can only be either the New York Rangers or the St. Louis Blues. The Montreal Canadiens are the only other club in the N.H.L. who could possibly have a twenty man payroll in excess of $2.0 million and they finished a full sixty points ahead of the Rangers and fifty-five points in front of the Blues in the 1975-76 final standings. The Boston Bruins reported a twenty player major league payroll of less than $1.5 million in response to a questionaire at a time when they still employed superstars Bobby Orr and Phil Esposito. Meanwhile, four teams the Vancouver Canucks, the Pitssburgh Penguins, the St. Louis Blues and the New York Rangers, the most competitive of whom finished the 1975-76 season thirty one points in arrears of the Bruins, reportedmajor league player salary budgets in excess of $1.5 million for their major league roster.

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[94] "Time Running Out on Saints as Creditors Continue to Close In", The Hockey News, Jan. 16, 1976, page 27.
[95] Alan Truex, "Flames Owner Ponders Alternatives to Keep N.H.L. Franchise in Atlanta", The Hockey News, Dec. 24, 1976, page 14.

In addition, Wren Blair general manager and part owner of the Pittsburgh Penguins, reported that the operating costs of the Pittsburgh operation were an astronomical $4.6 million before his group acquired the club. In comparison, an average N.H.L. firm operates on a budget of approximately $3.6 million.[96] Furthermore, recent changes in the player market situation have resulted in an over supply of journeyman hockey players.[97] Yet, major league hockey's general managers have not taken advantage of this opportunity to drive salaries down through hard bargaining with free agents. According to Clarence Campbell, president of the N.H.L., league salaries increased by sixteen percent, and one half to two thirds of the free agents (most of whom had relatively little bargaining power) actually received raises.[98]

9. Subsidization of Ineffective Development Systems

Evidence indicating a laxity of cost control and a lack of cost benefit analysis within the major league hockey industry is not restricted to the major league teams as their minor league affiliates also appear to be chaotically mismanaged. The Montreal Canadiens top minor league affiliate, the Nova Scotia Voyageurs, of the American Hockey League are regarded as being so strong that the majority of their players could compete successfully in major league hockey.[99] The Voyageur's total operating expenses in a given year are approximately $800,000 and in 1974-75 they lost $100,000 after generating $700,000 in income.[100] However, other major league clubs with little or no talent on their major league are subsidizing minor league affiliates which have few legitimate major league prospects on their rosters. The Washington Capitals possess minor league contracts worth an estimated $900,000 while the Kansas City Scouts club which shifted its operation to Denver had a minor league payroll of $500,000. In addition, the St. Louis Blues paid about $500,000 to support their Providence farm club.[101]

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[96] Bill Libby, "What Makes Wren Run...", The Hockey News, March 5, 1976, page 8.
[97] Christie Blatchford, "The Newest Fear", Toronto Globe and Mail, March 11, 1976, page 46.
[98] Red Fisher, "N.H.L. Problems Rooted in Bad Management", The Montreal Star, Dec. 4, 1976, page G-1.

These expenditures could perhaps be justified, if these farm teams were providing a steady flow of young talent for the major league club. Unfortunately, this is not the case. The two most highly regarded minor leagues are the Central Hockey League and the American Hockey League but of the one hundred and seventeen individuals listed on the starting rosters of the former and the two hundred and thirty-six players listed on the starting rosters of the latter prior to the 1973-74 season, only eighteen of the Central Hockey League players and twenty-seven of the American Hockey League players are currently on major league rosters.[102] Moreover, many of these individuals currently occupying spots on major league rosters are of marginal caliber. Examination of the A.H.L. rosters for the 1973-74 season reveals only three II caliber players, Bill Hajt, Peter Sullivan and Larry Goodenough and one of I caliber Peter McNabb, while only one of the one hundred and seventeen C.H.L. players, Glen "Chico" Resch, could be considered of II stature.

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[99] Frank Orr, "The Canadien 'Problem'", The Hockey News, Oct. 22, 1976, page 12.
[100] Hugh Townsend, "Vees: They'll Turn the Corner With New Complex-Pollock", The Halifax Chronicle Herald, March 12, 1976, page 27.
[101] Don Ramsey, "100 N.H.L. Farm Hands Could Be Unemployed", Toronto Globe and Mail, April 20, 1976, page 37.

Since few minor league players are capable of earning a regular spot on a major league roster the amount of depth minor league teams supply to their parent clubs is negligible. Therefore, due to the fact that relatively few players from these clubs eventually develop into major leaguers, it seems pointless for major league hockey firms to retain a large number of career minor leaguers under contract. Nevertheless, eight of the ten N.H.L. firms replying to the author's questionaire employed over thirty players during the 1975-76 season, including their twenty man major league rosters.

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[102] "Starting C.H.L. Rosters", The Hockey News, Nov. 2, 1973, page 32.
"A.H.L. Rosters", The Hockey News, Nov. 16, 1973, page 28.

V. The Underlying Causes of Mismanagement in the Major League Hockey Industry

Several factors have contributed to the overall low level of managerial expertise present in the major league hockey industry.

A. Educational Standards

The educational level of the industry's managerial personnel is exceptionally low in comparison to other multi-million dollar businesses. A large percentage of the eighteen N.H.L. general managers have not completed high school while Bill Torrey of the New York Islanders is the only college graduate in their ranks.[103] The selection process which is utilized to recruit management personnel is largely responsible for this low educational level as the first prerequisite to gaining a front office position with a major league hockey club, is an an extensive playing career in either the major or minor leagues. Ten of the eighteen N.H.L. general managers made the transition from player to coach to general manager.[104] Since Major Junior A hockey, professional hockey's principal amateur feeder system, not only exists separately from the educational systems but can discourage players from continuing their education as the rigours of its schedule make it difficult for players to keep up with their studies, relatively few of this set of potential managers achieve a high educational level.[105]

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[103] "Current N.H.L. General Managers and Coaches", 1976-77 N.H.L. Guide, pages 282-294.
[104] 1976-77 N.H.L. Guide, pages 282-294.

The other breed of general manager has worked his way up through the ranks after commencing work in professional hockey soon after completing high school. He has held numerous positions with varying degrees of responsibility from stick boy to trainer to scout, during his extensive training period. The remaining eight N.H.L. general managers worked their way up the corporate ladder in this fashion.[106] As N.H.L. President Clarence Campbell has noted:

> "It's always been my view that the best hockey executives are those who have scuffled around through the minor ranks in Canada, who operated teams at all levels and learned all facets of the game. They are the best prepared to handle a team."[107]

It is a small wonder that Mr. Campbell would make this statement as this is the only type of hockey executive he encounters.

While formal business training is not a prerequisite to success in the major league hockey industry, a fact several highly respected hockey executives notably Sam Pollock of the Montreal Canadiens and George "Punch" Imlach of the Buffalo Sabres can attest to, an education which facilitates the analytical solution of business oriented problems would surely be beneficial in an industry that is becoming increasingly complex as a result of the legal, structural and market constraints placed upon it.[108]

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[105] Bruce Kidd and John McFarlane, The Death of Hockey, page 64.
[106] "Current General Managers and Coaches", 1976-77 N.H.L. Guide, pages 282-294.
[107] Frank Orr, "Campbell Speaks Out", The Hockey News, Dec. 27, 1974.

B. Owner Interference

Even in instances where a competent general manager is at the helm of a major league hockey firm interference by owners who are no more analytical than the manager and lack his expertise in hockey matters can grieviously effect the entire operation. George "Punch" Imlach who was the coach and general manager of the Toronto Maple Leafs when they won four Stanley Cups required the consent of a hockey committee consisting of the team's owners and their friends before he was allowed to make any major deal.[109] Meanwhile, Scotty Bowman the man responsible for much of the St. Louis Blues early success left the team in disgust after his owners, the Salomons, continually overruled him on key personnel decisions.[110] Similarly, the California Golden Seal's general manager Garry Young was severely hindered in his efforts to prevent wholesale player defections to the W.H.A. by the franchise's owner, Charles O. Finely. Finely later reversed his stand and signed his remaining players to long term contracts.[111]

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[108] Bill Libby, "Sam The Ice Man", The Hockey News, Oct. 22, 1976, page 8.

[109] Imlach and Young, Hockey Is A Battle, page 3 and 4.

[110] Donald Berns, "Blues Part Company With Clubs Future Solid", The Hockey News, June 1971, pages 6 and 20.

C. Evaluation of Managerial Performance

It is an open secret that owners tend to evaluate their managerial personnel on a short run basis. Consequently, the general manager and coaching positions within major league hockey have a tremendously high turnover rate. Of the eighteen individuals occupying the general managers' chairs on the eighteen N.H.L. clubs just prior to the commencement of the 1974-75 season only twelve still retained their positions at the midway point of the 1976-77 season. Over the same time period six coaches were also either relieved of their positions or resigned them.[112] What goes relatively unnoticed, however, is the effect the insecurity created by this turnover rate has on managerial performance.

Driven by the knowledge that they are evaluated on a short run basis and with the full realization that they are for the most part qualified for little else but hockey management, executives tend to become oriented towards the short run. Being rational individuals their thinking becomes geared to the present or immediate future rather than the long run viability of the organization. They attempt to compile as impressive a record as possible in the short time that they have with the club in order to ensure their own marketability. Consequently, even though they realize the franchise will never be competitive without them and as a result their own career with the firm will have a limited duration, the managers continue to trade draft choices for immediate player assistance.

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[111] Bill Libby, "Charlie O. Fighting Back", The Hockey News, June 1973, page 8.
[112] 1974-75 N.H.L. Guide, pages 230-239.
1976-77 N.H.L. Guide, pages 282-294.

D. The Monopoly Structure of Major League Hockey

The monopoly structure that existed in the major league hockey industry prior to the formation of the W.H.A. also contributed to the mismanagement of its firms. Unhindered by competitive market forces the N.H.L. was able to keep its player costs at an extremely low level. In 1971-72, the year prior to the formation of the W.H.A., the average N.H.L. players' salary was $31,688 and salaries constituted approximately 24% of a team's total operating budget. Salaries had been relatively constant at this percentage of operating costs for the previous ten to fifteen years although they experienced an increase from an average of $16,533 in 1965. The percentage of total operating costs allocated towards salaries by N.H.L. clubs is now 48% while the average N.H.L. salary is $88,000.[113] Operating costs themselves have risen from $850,000 in 1965 to $1.75 million in 1971 to $3.5 million today.[114]

With relativley low operating costs managers were able to show their owners an impressive bottom line at the conclusion of each season irregardless of how inefficiently the firm's resources were in fact being utilized. Noll estimated that the California Golden Seals, a franchise situated in an inadequate market, was the only unprofitable firm in the N.H.L. during the 1972-73 season.[115] Consequently, managers were under considerably less pressure to maintain tight cost control and in many cases were guilty of unnecessary expenditures. For example as late as the 1971-72 season eight of the sixteen N.H.L. clubs operated more than one minor league team when they did not have enough talent to stock one properly.[116] It is only now when hockey executives are for the first time facing some of the everyday pressures exerted on managers of other multimillion dollar businesses that their lack of environment are coming to light. Previously, their ineptitude and incompetence were hidden behind the monopolistic structure of the industry.

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[113] Jamie Wayne, "Next Step In N.H.L.: Contraction", Financial Post, Jan. 22, 1977, page 2.
[114] "Campbell Gives N.H.L. Blunt Warning: Cut Costs or Weak Teams Will Fold", The Hockey News, May 23, 1975, page 2.
[115] Roger G. Noll, "The Team Sports Industry: An Introduction", Government and the Sports Business, page 28.
[116] Jim Proudfoot, Pro Hockey 1971-72, pages 31, 42, 62, 72, 112, 122, 140, 149. /New York; Providence, Omaha /Toronto; Tulsa, Phoenix /Buffalo; Salt Lake, Cincinnati /Detroit; Fort Worth, Port Haron, Tidewater /St. Louis; Denver, Kansas City /Los Angeles; Springfield, Seattle /California; Baltimore, Columbus.

VI. Alternative Solutions to Major League Hockey's Problems

Essentially four changes in its structure have been put forward as partial solutions to the multitude of problems besetting the industry. These alternatives will be discussed with respect to their objectives, possible ramifications and ease of implementation.

A. Immediate Solutions

1. Establishment of a Dispersal Draft

The establishment of a dispersal draft has been postulated as one method of equalizing the talent amongst the member teams of the N.H.L. Each team would be allowed to protect a limited number of its players with the clubs being able to select unprotected players on a reverse order of finish basis. The arrangement most often discussed allows for only twelve players to be protected with no team being permitted to lose more than four athletes.[117] This measure would undoubtedly equalize the distribution of talent to a large degree and consequently will meet strong opposition from the clubs it will effect the most, the legitimate contenders, if an attempt is made to implement it.

A more important issue raised by the the possible implementation of such a draft concerns the question of whether or not inept and incompetent owners and managers should be subsidized by their more astute counterparts. Three of the five N.H.L. clubs (Boston, Montreal, Philadelphia, Buffalo and the New York Islanders) currently considered by most observers to be the league's legitimate contenders have come from different expansion eras. Consequently, it can be argued that any inherent competitive advantages the so called "established teams" may have enjoyed with respect to icing a competitive product have been equalized. Therefore the uncompetitive clubs' perennial predicament, given the obvious success of their counterparts who entered the league at the same time, is largely of their own making. They have traded and drafted foolishly in comparison to the astute maneuverings of their rivals and are now paying the price for their lack of managerial expertise.

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[117] George Hanson, "Charity Isn't Care for 'Have Nots' Woes", The Montreal Star, Jan. 12, 1977, page D-3.

If individuals who lack the necessary managerial ability to operate a successful franchise are subsidized the integrity of the sport may suffer as a result. The least competent organization would be rewarded for its efforts by being provided with the first opportunity to select from both the amateur and the dispersal draft. This structure presents the danger that managers would attempt to ice a less competitive team in order to achieve greater benefits at a later date through these equalization devices. Thus the fans' faith in the essential integrity of the game could be shaken if it appears that organizations are provided with incentives to give less than their best effort.

2. Geographical Realignment of Divisions

The realignment of divisional structures within the major league hockey industry on a geographical basis has been suggested as a partial solution to some of the industry's problems. The purposes of such a realignment would be to reduce travel costs and improve the caliber of play by allowing the players more rest and practice time. In addition, this measure's proponents also contend that it will further the development of rivalries between cities and thereby encourage better attendance.[118]

Unfortunatly, the divisional realignment proposal is not without its drawbacks. First, the reduction of travel costs which average about $225,000 annually would not significantly effect the budget of most firms as they constitute less than 7% of the typical N.H.L. team's budget.[119]

Second, the increased rest and practice time allowed the players and coaches as a result of a decrease in travel would probably increase the caliber of play to a degree but there is no guarantee that this improvement would be more than marginal. Third, realignment along geographical lines would reduce the number of times the better drawing teams played in some cities and could therefore cause a decline in attendance that would not be fully offset by increased fan interest occuring as a result of the development of a geographical rivalry. Finally, geography may not be as important as team quality in developing rivalries. The biggest draws on the road are still the legitimate contenders not the mediocre clubs situated within a given geographical radius.

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[118] Jamie Wayne, "Next Step In N.H.L.: Contraction", *Financial Post*, Jan. 22, 1977, page 2.
[119] "Owners Seek Unbalanced Schedule to Stimulate Rivalries in N.H.L.", *Toronto Globe and Mail*, March 30, 1976, page 3a.

3. Reduction of the Schedule

Various individuals usually fans, players, or media people have suggested that a reduction in the number of games played would facilitate better competition and increase fan interest.[120] The logic behind this proposal is that the players would be better prepared for each contest while the fans would not become as bored by an excessively long schedule.

The primary drawback to this proposal is that in a high fixed cost industry where price has reached the equilibrium point such a suggestion is clearly absurd. As Brian O'Neil, Executive Director of the N.H.L., has noted, "the economies of hockey necessitate the 720 game schedule. Scrap one game and you forfeit in excess of $1 million in gate receipts.".[121]

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[120] Jamie Wayne, "Next Step In N.H.L.: Contraction", Financial Post, Jan. 22, 1977, page 2.

4. Merger Between the N.H.L. and W.H.A.

The possibility of a merger, accommodation or consolidation between major league hockeys' two competing cartels has been widely discussed as a potential solution to many of the industry's problems.[122] The proposed form of such an agreement varies from a common draft and championship series, to outright merger between the two leagues similar to the one involving the American Football League and National Football League.[123] Alternatively some have prophesized that the W.H.A. will disband with a few of its franchises joining the N.H.L.[124]

Despite the variety of proposals related to an accommodation between the leagues their purposes are essentially two fold. The first and primary purpose behind any such agreement is to eliminate competition for the services of professional hockey players and thereby turn a seller's into a buyer's market.[125] Second, since most amalgamation proposals involve dropping several teams the supply of quality hockey players on the market place would increase dramatically allowing clubs to upgrade their product in an absolute or artistic sense.

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[121] Norma McCabe, "Joe Who?", *Toronto Globe and Mail*, Nov. 20, 1976, page 53.
[122] Richard Procter, "Pro Rivals Should Unite, Hull Says", *Toronto Globe and Mail*, Nov. 15, 1976, page S-7.
[123] "Benevolent Dictator Hockey's Salvation", *The Albertan*, Jan. 19, 1977, page 14.
[124] Jamie Wayne, "Next Step in N.H.L.: Contraction", *Financial Post*, Jan. 22 1977, page 2.
[125] Don Ramsey, "N.H.L. Owners Talk Merger with W.H.A. Approach Players for Co-operation", *Toronto Globe and Mail*, Dec. 9, 1975, page 40.

Unfortunately for its proponents several major obstacles stand in the way of any possible merger. First, and foremost the N.H.L.'s collective bargaining agreement with the National Hockey League Players Association (N.H.L.P.A.) which extends until 1980 could be voided at even a hint of discussion pointing towards a possible merger.[126] Breach of the aforementioned agreement would result in all of the N.H.L. players becoming free agents at liberty to sign with anyone desiring their services.[127] However, at the present time the possibility exists that the players might reconsider their position with regards to this matter if they felt the viability of the industry itself was in question.

As Bobby Clarke current president of the N.H.L.P.A. has said: "But I'm sure if it came to that, we could always work something else out. We could rewrite the contract for the good of the game.

Things are a little different now than when we signed the contract last season, and maybe it would be the best thing to have one league of fewer teams than two leagues and all the teams we have now."[128]

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[126] "Free Agent Clause Proves Clincher In Historical 5-year N.H.L. Agreement", The Hockey News, Oct. 24, 1975, page 17.
[127] Don Ramsey, "W.H.A. Officials Confer With Eagleson In Renewed Bid For Merger With N.H.L.", Toronto Globe and Mail, Nov. 10, 1976.

Besides the problem with the N.H.L.P.A. any merger structured along the lines of the recent National Basketball Association and American Basketball Association agreement, in which the latter ceased operations while some of its member firms joined the former, would leave the surviving clubs open to legal action by the firms excluded from the amalgamation.[129]

Even if the aforementioned difficulties could be dealt with and a consolidation of the leagues occurred with some W.H.A. teams ceasing operations and others joining the N.H.L. there is some question as to whether or not it would achieve its primary purpose. The average salary in the N.H.L. increased by some 16% before the commencement of the 1976-77 season, according to league president Clarence Campbell, despite a lack of competitive bidding on the part of the W.H.A.[130] The N.H.L. lost only four of the first fifty-four players it selected in the 1976 amateur draft to the rival circuit.

Moreover, the addition of former W.H.A. franchises could in many ways cause the N.H.L. further problems. At least eight of the W.H.A. clubs have serious market, facility or ownership problems that could prove to be added burdens on the N.H.L. should it choose to accept them into its ranks.[131] In addition, several of the W.H.A. teams admitted to the N.H.L. probably would not be immediately competitive as the N.H.L. has had significantly more success in recruiting the better amateur propects over the last several seasons. Since 1972, the N.H.L. has succeeded in signing eighty-five of the ninety individuals selected in its draft's first round.[132] The other member firms in the new major league might therefore be forced to subsidize these uncompetitive teams until such time that they acquired better player inputs.

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[128] Bob Verdi, "Merger May Be Answer", The Hockey News, Dec. 19, 1976, page 10.

[129] Red Fisher, "N.H.L.-W.H.A. Merger is an Impossible Dream", The Montreal Star, Dec. 11, 1976, page G-1.

[130] Red Fisher, "N.H.L. Problems Rooted in Bad Management", The Montreal Star, Dec. 4, 1976, page G-1.

B. Long Run Solutions

The aforementioned solutions to the major league hockey industry's difficulties have been essentially short run in nature and limited in their effectiveness as they do not attack the three major problems besetting the industry. These problems and suggested solutions will now be discussed.

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[131] Reyn Davis, Winnipeg Free Press, March 12, 1976, page 18.

[132] 1972-73 N.H.L. Guide, page 143. 1973-74 N.H.L. Guide, page 189.
1974-75 N.H.L. Guide, page 206. 1975-76 N.H.L. Guide, page 250.
1976-77 N.H.L. Guide, page 257.

1. Market Limitations

As has been previously mentioned at least six firms within the industry (Houston, San Diego, Phoenix, and Minneapolis-St. Paul, in the W.H.A. and Colorado, and Cleveland in the N.H.L.) are situated in inadequate markets.[133] Irrespective of their product's quality these firms will be forced to absorb large losses every season.

Their owners' alternatives are then essentially threefold. First, the firm can continue to absorb these losses in hopes of developing a strong enough base of support at a future point in time to make the operation a viable one. Second, the owners can disband the team and salvage as much of their loss as possible by selling the firm's assets (ie. its player contracts). Third, they can move the franchise to a different market area. Unfortunately, with respect to this last alternative there are no potential franchise sites left with any brighter prospects for success than the ones already being occupied. Moreover, since few individuals have the resources or stamina to absorb losses of between $500,000 and $2.5 million annually with only dim hopes of the operation ever becoming viable, the first alternative is also effectively eliminated. This leaves only the second course of action and it is the one that will be taken more and more over the next few years as firms' losses continue to mount.

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[133] Don Ramsey, "N.H.L., W.H.A. Teams May Face Financial Crisis", Toronto Globe and Mail, Nov. 19, 1976, page 39.

2. Scarcity of Player Inputs

Although, according to several distinguished authorities on the subject, the supply of quality player inputs has never been as large as it is at the present time this talent has been spread amongst many more teams.[134] In a little over a decade the number of major league hockey teams has increased six hundred per cent from six to thirty while the number of major league job opportunities went from one hundred and twenty to six hundred. The scarcity of quality player inputs will be alleviated somewhat within the next few years as the six previously mentioned firms situated in inadequate markets, as well as some others with substandard facilities, such as Calgary, disband. If seven teams cease operations one hundred and forty hockey players will be thrown on the job market. Assuming that only thirty percent of these individuals are quality athletes, forty-two fine hockey players would be distributed amongst the remaining twenty-three firms.

However, in the long run the industry will have to increase its efforts in the direction of improving the quantity and quality of player inputs from the amateur feeder systems. At the present time the main thrust of its amateur assistance program revolves around paying development fees to the governing body of Canadian amateur hockey, the Canadian Amateur Hockey Association (C.A.H.A.). The N.H.L. pays the C.A.H.A. almost $500,000 annually for its development of professional prospects while the W.H.A. also makes a significant contribution.[135] The greatest portion of these monies are paid on a per player basis with regards to the graduating juniors. The fee structure currently in effect is detailed below:

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[134] Frank Orr, "Oh, Parity You're Wonderful", The Hockey News, May 23, 1975, page 12.

> "The 1976 regulations provided for $1,000 for each draft claim, including claims for college players but not including claims for European players. For each drafted player signed to an N.H.L. contract in the first or second season following draft, a payment of $4,000 is to be made. An additional $5,000 payment is to be made for each 40 games the drafted player plays in the N.H.L. during the first and second season following the draft. The total payment under the latter provision is not to exceed $15,000. Therefore, the maximum possible payment for all purposes is $20,000."[136]

Despite the assistance provided amateur hockey by the major leagues there is evidence that some feeder systems' production of professional caliber player inputs is lagging behind their capabilities in this regard. As has been previously noted in this text the Quebec junior circuit produces far fewer major league caliber players both quantitatively and qualitatively than its O.H.A. and W.C.H.L. counterparts even when differences in population are taken into consideration.[137]

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[135] "W.H.A. Calls C.A.H.A. Agreement Good Business", The Hockey News, Oct. 5, 1973, page 25.
[136] "The Universal Amateur Draft", 1976-77 N.H.L. Guide, page 259.

The reason for this disparity in productivity appears to result from differences in the quality of the minor hockey programs within the various provinces and particularly the major cities. Montreal, Toronto, and Edmonton with populations of 2,821,000, 2,790,000 and 540,000 people respectively were compared with respect to the number of major league hockey players born in each city from 1949 to the present. Sixteen individuals on major league hockey rosters were born in Montreal, thirty-seven in Toronto and eleven in Edmonton. None of the Montreal born players were of I stature while three were II's, five were III's and the rest were IV's or V's. In contrast, three Toronto born players were I's, nine were II's and six were III's while Edmonton yielded three II's and three III's. It therefore appears that the Montreal minor hockey system is not as productive on a per capita basis as its counterparts in some other major Canadadian cities. This could to a large degree explain the disparity in the production of major league hockey players which exists between the Q.J.H.L. and the O.H.A. and W.C.H.L. as a large % of the province of Quebec's total population is centered in the Montreal area.

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[137] Supra. page 125.

Consequently, if the major league hockey industry wishes to significantly increase the quantity of quality players entering the professional ranks annually, it would be well advised to consider attempting to improve the quality of the minor hockey programs in the province of Quebec in general and the City of Montreal in particular. This could be accomplished by providing better qualified resource people to assist the local minor hockey officials and coaches in structuring their system and in improving the caliber of instruction.

A similar program of assistance with respect to the minor hockey programs situated in regions of the United States where hockey interest is rapidly increasing might also greatly improve the supply of talent in the long run. America is currently experiencing a building boom with respect to arena facilities particularly in the Midwestern and Eastern Seaboard states.[138] If the industry takes steps to facilitate the development of talent from this as yet largely untapped source it could prove to be a tremendous boon to the industry as a whole.

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[138] Christie Blatchford, "The Iceman Cometh Big to United States", Hockey Digest, March 1974, page 88.

3. Disparity of Managerial Ability Within the Industry

Regardless of much the supply of quality player inputs increases the industry will not become more competitive in a relative sense until the wide disparity with respect to managerial ability amongst the teams is equalized to some extent. When the N.H.L. had only six teams and a large supply of talented players in the minor leagues roughly the same proportion of clubs (one third) were chronic noncontenders. For example during the 1964-65 season, Montreal had eighty-five points, Chicago eighty-four points, Toronto seventy-eight points and Detroit seventy-one points with the New York Rangers and Boston Bruins bringing up the rear with fifty-four and forty-eight points respectively. Thus even when talent has been plentiful astute managements have still been able to divert a greater proportion of it towards their own firms.

Given the widely varying differences that exist with respect to human capabilities in any field it is probably impossible to completely equalize the competitiveness of professional team sports enterprises, as some managers are simply more astute than others. A reduction of this gap in managerial competence is perhaps a more realistic goal to strive towards. However, the critical challenge facing the industry's policy makers in their efforts to reduce the wide disparity in abilities between the best managers and their mediocre counterparts, is to accomplish this end not by penalizing the former, but by upgrading the latter. The best managers set standards for the other organizations in the industry to follow and should be applauded not penalized for their efforts. Moreover, it is essential to the integrity of the sport that a handicapping structure which rewards incompetent managers not be introduced. Otherwise fans are apt to lose faith in its basic integrity as the struggle for the top will lose its value.

The difficulty in upgrading the level of management within the industry lies in discovering individuals who possess the necessary analytical, interpersonal relations, leadership, and decision making skills required to be successful in a normal business in conjuction with the ability to accurately evaluate athletic talent. The issue of whether of not it is easier to train an individual possessing the necessary business aptitudes to evaluate talent or educate an individual with the knack for evaluating talent in the necessary business skills is a contentious one to say the least. It is the author's considered opinion that the latter is easier. Three of the five franchises considered by many to be the most efficiently operated in the N.H.L.: the Montreal Canadiens, the New York Islanders andthe Atlanta Flames are headed by individuals Sam Pollock, Bill Torrey, and Cliff Fletcher respectively without any experience whatsoever as professional hockey players.[139] It is particularly notable that Sam Pollock, considered by most observers to be without peer in the industry, had an extremely limited background with respect to the game itself when he joined the Montreal Canadien's organization as a teenager in 1945.[140] Mr. Pollock has himself stated that seventy-five percent of the hockey industry is like any other business and only twenty-five percent of it specialized.[141]

The evaluation of talent is largely a matter of standards. A certain caliber of player is required to ice a championship caliber team. Consequently, it is futile to accept athletes of a lesser quality as stop gap measures if their acceptance precludes or delays the acquisition of player inputs of sufficient quality to achieve legitimate contender status. Thus those managers who are willing to accept less than the best usually do and subsequently achieve neither legitimate contender status nor profit maximization.

Not only is the adoption of extremely rigorous standards a prerequisite to the attainment of success, but it also greatly facilitates its maintenance. The setting of high standards provides the motivation to stay at the top once success has been achieved and prevents the organization from becoming complacent. Socialization of the players to accept the challenge of maintaining the organization's stature helps to alleviate the dysfunctions which occur when players who have served the organization well over the years must be replaced before their productivity diminishes to the point where little salvage value can be realized from them. The players realize and accept the fact that they must be replaced if the organization's high standards of excellence are to be maintained.

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[139] Don Ramsey, "Habs' Pollock Leads Way Among N.H.L. General Managers", Toronto Globe and Mail, Dec. 14, 1976, page 39.

[140] Bill Libby, "Sam the Ice Man...", The Hockey News, Oct. 2, 1976, page 8.

[141] George Hanson, "Sam Has Come a Long Way From Snowden", The Montreal Star, Jan. 22, 1977, page H-1.

Within the industry and indeed throughout all of professional team sport the Montreal Canadiens organization is the classic example of an adherence to rigorous standards in the long run. Where other firms within the industry set winning the Stanley Cup as their ultimate goal this is Montreal's minimum objective.

Derek Sanderson, veteran hockey player, elaborates on the Montreal mystique:

> "Playing for Montreal has cracked many guys who couldn't stand the pressure. Every time they lose, the whole province of Quebec is up in arms. How would you feel playing in a city that has half a dozen newspapers and there are stories every day about the team? What else is there in Montreal to read about? The Expos (Montreals baseball team)? Do you know how deep inside a team you have to get to be able to write six stories a day for nine months?

> So when they lose - and hell, they only lost ten times last year - there's always someone to blame. Its as if you're not allowed to lose, that when you do you must have a scapegoat."[142]

Not only is the standard set incredibly high but the Canadiens playing personnel seem to not only accept, but relish the challenge to perform up to these standards. Guy Lafleur the clubs premier right wing:

> "The City of Montreal represents perfection in the game of hockey. The fans know the difference between good and poor performance. Why should they be satisfied with poor performances?"[143]

Henri Richard the clubs former captain at age thirty-six:

> "Our tradition here is so overwhelming that I think everyone wants to play with the team, although some who leave say they are relieved...One thing you learn here is every game is to be won and if you haven't won everything the season is lost."[144]

The teams current captain Yvon Cournyer on the motivation to perform on Canadiens:

> "...I feel I'm at my peak and haven't started to slow down yet. I can't afford to, because when

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[142] Gerald Eskenazi, "Montreal Canadiens-The Drafting of a Dynasty", Hockey Illustrated Special 73-74, page 22-25.
[143] Hank Lowenkron, "Montreal Canadiens-The Glory That Was Theirs", Hockey Illustrated, May 1975, page 11.
[144] Bill Libby, "Matter of Standards", The Hockey News, Dec. 15, 1972, page 8.

your contributions to this club decrease you are sent away."[145]

Thus their adherence to extremely rigorous standards has been one of the keys to the Montreal Canadiens organization's success and other major league hockey firms hoping to achieve a similar degree of success are well advised to emulate them in this respect.

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[145] Bill Libby, "Matter of Standards", The Hockey News, Dec. 15, 1972, page 8.

Chapter V

Summary and Conclusions

Major league hockey firms operate in a high fixed cost industry. W.H.A. firms have annual operating budgets of from $2.5-3.6 million while the typical N.H.L. firm operates on a budget of between $3.5-4.0 million.

In order for a major league hockey firm to attain success, where success is defined as profit maximization, four elements must be present in conjunction with one another. First, the firm must have an adequate market, that is one that will allow it to utilize its full seating capacity at a relatively high average price per seat if the team is of championship caliber and approach its break even point if the team is of mediocre quality. Second, the firm requires a facility which has at least 15,000 seats and is comfortable and readily accessible to the general public. Where the arena is owned and operated by the same corporate entity as the hockey firm it should be able to cover its fixed and variable costs without being subsidized by the hockey firm. Third, the firm must be in possession of sufficient financial resources to enable it to absorb operating deficits of several hundred thousand dollars in the short run. Fourth, because firms situated in adequate but imperfect hockey markets are unable to utilize their full seating capacity at relatively high ticket prices until they have a championship caliber hockey team the firm requires an organization capable of assembling and maintaining a championship contender in the long run.

A major league hockey organization must perform four functions if it is to achieve profit maximization in the long run. It has to accurately evaluate athletic talent, optimize and refine the aforementioned talent, market its product and maintain equity within itself.

The Player Market

There are essentially only four ways in which hockey firms can acquire the superior player inputs they need to assemble a legitimate contender, trades, raids on other teams, player purchases and the amateur draft. Since something of equal value must normally be exchanged to acquire a player via the trade route, few quality free agents are available annually and talented athletes are rarely sold outright; the amateur draft is the only acquisition mechanism which can be relied upon to produce a steady supply of superior player inputs in the long run.

The draft has several important characteristics associated with it. First, it is heavily skewd towards its first few rounds, that is the vast majority of the superior player inputs available in any given year are selected within the draft's first three rounds. Second, due to the highly skewd nature of the draft, the risk of failure (while quite acceptable within the first round) increases significantly with each ensuing round and is extremely high beyond the third round. Third, the adjustment period normally required of a player entering the professional ranks from an amateur feeder system is relatively short, providing he receives ample ice time and good coaching. Fourth, the Major Junior A leagues are the predominant sources of superior player inputs. The O.H.A. and the W.C.H.L. combined currently produce approximately 80% of the I and II stature hockey players entering the industry while 10,5,3 and 2% of the athletes of this caliber are developed by the Quebec Major Junior circuit, the Canadian and American colleges, European hockey and Tier II Junior A hockey respectively.

Major League Hockey Management

Where a major league hockey firm is not unduly constrained by market, facility or fiscal restrictions the critical factor which determines whether or not it succeeds in assembling and maintaining a championship caliber hockey team in the long run, is the quality of its managerial personnel.

The overall quality of managerial performance within the industry as a whole is poor. Organizational dysfunctions which are common throughout the industry, such as inadequate cost control, poor cost benefit analysis, sub-optimization, nepotism and the retention of incompetent personnel are manifestations of this lack of expertise.

The underlying reasons for major league hockey's poor managerial performance are basically four fold. First, because very few of the individuals directing these multi-million dollar enterprises have formal business training, they lack the analytical skills to thoroughly analyze their enviroment. Consequently, they utilize a "touchy feely" or "gut reaction" approach to decision making. Second, owners within the industry commonly interfere with managerial perogatives beyond their realm of expertise. Third, the short run oriented managerial evaluation process utilized by most owners encourages managers to foresake long run planning and concentrate on attaining immediate short run goals, such as winning the next few games or making the playoffs, to the detriment of the firm's long run profitability. Finally, the monopoly structure of the industry, which for so long shielded hockey general managers from competitive market forces, served to conceal the ineptitude of many individuals from their employers. Player salaries were kept so artificially low that general managers could still show their owners an impressive bottom line irregardless of how wantonly they were in fact wasting company resources.

The formation of the W.H.A., which turned a monopolistic economic structure into one of duopoly, had severe repercussions on the industry. First, operating costs rose dramatically. The average N.H.L. team's budget increased from $1.75 million in 1971 to $3.5-4.0 million today. However, the net effect of this rise in operating costs on the firms has been somewhat overplayed as not only have the firms doubled their ticket prices, but inflation would have undoubtedly had a significant effect on operating costs, with or without the existence of the W.H.A.. Second, the rivalry between the two cartels promoted a land grab battle for franchise sites which resulted in several franchises being located in inadequate markets. These franchises have proven to be a burden on the healthy firms within their respective leagues. Third, the formation of the W.H.A. spread the available player inputs amongst many more teams, further diluting the product's absolute quality. Fourth, because qualified managers are in even shorter supply than skilled hockey players, these scarce resources have also been spread more thinly amongst the industry's member firms.

Finally, the revised economic structure of the industry has dramatically altered the balance of power with respect to player management relations. Where before the manager ruled by decree and therefore did not require a large repertoire of interpersonal relations skills, he must now exercise much more diplomacy and be cognizant of his employees' reactions to his policies. Moreover, the changes in their enviroment force major league hockey managers to deal with a much wider range of complex economic, legal and business policy issues than they have ever dealt with before.

Suggested Long Run Solutions

Three major actions must be taken if the industry is to regain its previously solid economic footing. First, all franchises which are without adequate markets, as well as those with severe long run facility problems should be allowed to cease operations. This will eliminate a large portion of the financial drain on the other firms and increase the supply of player inputs. It should be noted that merger is not necessarily a precondition for implementation of this policy.

Second, a concerted effort should be made to improve the overall supply of player inputs by providing greater assistance to minor hockey programs, particularly in the province of Quebec and the United States. At the same time that the supply of player inputs entering the player market is improved, the player reservation system must be loosened sufficiently to prevent the legitimate contenders from stockpiling talented athletes on their minor league affiliates for an excessive amount of time. This latter suggestion is intended to promote the freer circulation of player inputs as it is pointless to improve the supply of talent if it remains concentrated in relatively few hands.

Finally, the industry needs to recruit and train more qualified managers, if the disparity in performance between the best managers and their less competent counterparts is to be reduced. The leagues or the owners themselves will probably have to accept responsibility for this function as the general managers can hardly be expected to be overly enthusiastic with respect to recruiting their own successors.

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